

**TEACHERS' ATTITUDES TOWARDS EDUCATIONAL EQUALITY
AND THE RELATIONSHIP BETWEEN THESE ATTITUDES AND
THEIR CLASSROOM BEHAVIOUR. A GREEK STUDY.**

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A dissertation submitted for the degree of Doctor of Philosophy

January 2002

ABSTRACT

This study is an exploratory investigation of Greek primary and secondary school teachers' attitudes towards educational equality and the relationship of these attitudes with their classroom behaviour. Three aspects were investigated: (a) the relationships between teachers' attitudes towards educational equality, (b) teachers' classroom behaviour (teachers and pupils interactions) and (c) the associations between teachers' attitudes and their classroom behaviour.

The research method employed was a mixture of qualitative and quantitative methods. Qualitative methods were employed at the early stage of the research to enrich validity of the attitude statements and observation categories. Quantitative methods were employed at the main study to enable the generalisation of the findings and the reliability of the data collection tools. A combination of questionnaires and observations was used to investigate teachers' attitudes and their classroom behaviour. The research was carried out in Greater Athens, Greece, on a representative sample of two hundred and sixty schoolteachers.

Main findings indicated that: (a) teachers' attitudes towards educational equality combined the liberal egalitarian, strict egalitarian and fair inegalitarian models of educational equality and (b) in classroom practice teachers applied the liberal egalitarian model of educational equality.

Teachers' attitudes preference for combining the educational equality models confirms the assumptions that attitudes contain conflicting and contradictory elements; and that teachers try to resolve tensions created when meeting different pupils' needs. The Greek educational equality model is an example of a western state, which combines the models of educational equality in its legislation. In Greek school reality though, the dominant educational equality model is the liberal one. This finding is revealed in teachers' classroom practice. It is argued that the increasing application of the market approach of differentiation to Greek education is the most significant reason for explaining the dominance of the liberal egalitarian model in classroom practice.

An alternative model of school education, which focuses on the social aspect of schooling, is presented. Policy implications include reflection on teaching and teachers' training. Stimulations for further thinking and research include: apply the research in different national contexts; investigate how significant factor teachers' training is for affecting teachers' attitudes towards educational equality; investigate the extent of spatial differentiation to education; investigate the condition of educational equality after the inflow of immigrants; and investigate the extent to which the perceived quality of schooling is push migration factor and to what extent is pull migration factor.

ACKNOWLEDGEMENTS

I would like to thank the following people for their valuable support that made the completion of the thesis possible:

Professor Brahm Norwich for closely supervising this work. Brahm's experience and expertise gave enormous help in dealing with the various theoretical and methodological difficulties confronted along the way. Without his multiple support and invaluable commentary the thesis would not have taken its present shape.

Professor Ingrid Lunt and Dr. Michal Lyons for invaluable commentary and criticism in a crucial stage of my thesis.

My friend Apostolis Dimitropoulos for supporting me emotionally and academically.

Victoria Boydell for her help in the grammar correction of the thesis and all the Greek teachers that participated in the research.

I left my parents last. I am indebted to my parents whose emotional and financial support helped me to finish the PhD. I hope that my mother **Irini** and my father **Aristidis** will be happy to see me completing the thesis.

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INTRODUCTION

The aim of the research is to investigate Greek teachers' attitudes towards educational equality and examine the extent to which teachers apply in their classroom behaviour their attitudes with a view its findings to be utilised by those responsible for educational policy and by teachers themselves.

As mentioned in section i. a. (a) of Chapter II (p. 59), the research defines the term 'attitude' as teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option. It acknowledges the evaluative dimension of attitudes and focuses on attitudes' cognitive element. In other words, the term 'attitude' in this research deals with teachers' beliefs about educational issues. It is not concerned with the behavioural element of attitude because it seeks to analyse teachers' opinions and then investigate the extent to which they are transferred into classroom practice.

The reference to 'pupils with difficulties' is considered important because teachers' attitudes towards educational equality and their classroom behaviour are influenced to a large extent by the presence of such pupils in class. With regards to 'pupils with difficulties', the literature from the UK and the US suggests that there are different definitions or disagreement among educators of the possible factors that may cause their difficulties. As mentioned in section i. a. (b) of Chapter II (pp. 63-64), the research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream compulsory educational context. The definition is individual class and teacher based and excludes pupils with severe learning difficulties. In the UK pupils with severe learning difficulties are referred to as severe learning difficulties (SLD) or profound and multiple learning difficulties (PMLD) (Croll and Moses, 1985; Norwich, 1990).

Using these definitions for the terms 'attitude' and 'pupils with difficulties' as a foundation, the thesis then examines educational dilemmas. It is important to note that in many cases there is a link between educational theory and classroom practice that takes place when people's ideas are transferred into the educational field. This is where dilemmas emerge. The scope of the introduction is to analyse these dilemmas, set the context of the research and present its structure.

i. Educational issues and dilemmas

Dealing with educational issues, especially when pertaining to attitudes, is a complicated and often contradictory matter. This can be attributed to the nature of attitudes, which often involve contrary and conflicting elements (Heath, 1986; Billig et al. 1988). Attitudes in that sense are not definite and pre-determined (Thompson, 1986; Siegel, 1987). There could be a consistent theoretical framework of attitudes, which shapes them into actions. Most of the time though, people express their own unique attitudes that quite often are not only in contrast to one another, but also contain contrary and conflicting aspects in an individual's own attitudes (Norwich, 1996,1, 2; 2000). This leads to certain questions in the case of education that can be labelled as the 'difference question' and relates to ways of treating differences between pupils in the school (Lindsay, 1997; Lunt, 1997; Lunt and Norwich, 1999). Ainscow and Muncey (1989), Norwich (1996, 1, 2) and Osborne (1997) argue that in a mainstream school classroom there are different pupils' needs that require accommodation by the teachers. These needs arise from individual needs (characteristics different from all other pupils), exceptional needs (characteristics shared by some pupils) and common needs (characteristics shared by all pupils). The question is how to deal with these needs?

This question raises further questions concerning educators' attitudes (Lunt, 1997). First, there are pedagogic questions that deal with the type of curriculum offered to pupils ('common curriculum question': whether different

pupils would have the same learning content or not?); with the identification of pupils: ('identification question': whether and how to identify individual pupils as different or not?); and with the integration and inclusion of pupils ('integration and inclusion question': whether and to what extent different pupils would learn in regular classes or not?) (Norwich, 1993). Educators not only have different opinions about each question, but also their answers could be contradictory to one another. This can be made more explicit when the questions, mentioned above, become more specific. That is, each question is transferred into a specific situation referring to different pupils. For the 'common curriculum question', the situation would be whether offering the same to all pupils leads to the promotion of equal opportunities? For the 'identification question', whether identifying 'pupils with difficulties' will help them or not? For the 'integration and inclusion question', whether teaching 'pupils with difficulties' in special or ordinary schools will be better for them. In each one of these situations one could give answers that seem to contradict each other; for example, one could be in favour of a common curriculum for all pupils but at the same time think that 'pupils with difficulties' need some specific curricula programmes.

It is necessary to explore what is creating these often-contradictory educational attitudes. We return to the main 'difference question', from another perspective that arise from the incompatibility between educational and social values. These values are equality, individuality and a sense of belonging and refer to the specific needs of pupils (Norwich, 1994, 2). Equality supposes that all pupils should be treated with no discrimination of any kind. Individuality supposes that every pupil is a unique individual with special interests that need attention. A sense of belonging supposes that each pupil should be a participating member of a valued social good, relating with other pupils in schools and classes.

It appears that there is a tension between these values, which leads to different questions (Lindsay and Thompson, 1997). Equality can be combined with a sense of belonging only when there is the sense that all belong equally

in the same group. Is it possible to combine these values with individuality? Behind the notion of equality there is a notion of democratic ethos and principle, which seems difficult to combine with the notion of individuality. According to Labaree (1986), this is the paradox of the modern educational system, exemplified by the US educational system: although schools were founded with the aim of promoting equality and democratic ideals, they also functioned in an environment

“dominated by markets and the ideology of possessive individualism.”

(p. 40)

Individualism is a characteristic that dominates the structure of our society. It involves liberty, excellence and quality. Liberty is an individual's right to choose among different courses of action. Excellence and quality involve producing a high quality product, not necessarily at the lowest cost (Labaree, 1986).

It seems that the simultaneous fulfilment of the values mentioned (equality, a sense of belonging, individualism, liberty, excellence and quality) are almost impossible. Husen (1975) has identified a kind of incompatibility between the identified values, especially between individualism and equality. On the one hand the notion of individualism includes liberty, which implies an individual choice concerning education and leads to different and unequal educational standards, while on the other hand the notion of equality involves reducing differences in educational standards.

Riley (1994) argues that excellence, quality and equality are interconnected and inseparable features of any good educational provision. An adequate educational system needs to resolve issues of equality to establish excellence and quality (Lindsay, 1997). However, Riley acknowledges that there is a tension between the equality, excellence and quality due to values.

According to Riley,

“through the exercise of their discretion - based on values and judgements - key actors in the system can influence quality and equality outcomes in favour of different groups in the system.”

(p. 13)

Moreover it seems, that at a general level, the exclusive pursuit of one value violates or eliminates the other. Attention to balance is difficult due to multiple variables, which include dilemmas (Bierlein, 1993). As Labaree (1988) argues, the balance required of US schools is one that balances conflicting but, highly valued ideals promoting the good of society. To accommodate, for instance, a democratic political ideology that demands equality and the common good combined with a competitive, capitalist economic ideology that emphasises individual choice that inevitably leads to inequality, is often unattainable. Cohen and Neufeld (1981) noted paradoxes concerning the provision of educational equality in a competitive society like in the US.

“In the schools America seeks to foster equality - and individual Americans seek to realise it. But in the market, Americans seek to maintain or improve their economic and social position, thereby contributing to inequality even if they individually wish the reverse.”

(p. 70)

What may happen at the level of attitudes is that members of a culture, like some in the US, acknowledge choice as an important symbol of all persons' freedom to define themselves, but they also acknowledge community values and promote social relationships. They are also in favour of both the equalities demanded by political democracy and the competition for individual advantage in the market place transferred in the economy. Once again, the competing values here constrain each other creating dilemmas (Powell et al., 1985).

Social and political pressures have transferred these dilemmas in society where the focus on one principle at the exclusion of others occurs. The two

major political ideologies, liberalism and socialism, could influence the uptake of either principle (Tarrant, 1989). Liberalism introduces the free market as the preferable economic system, even though capitalism will inevitably produce social and economic inequalities. On the other hand, the goal of socialism is to ensure social equality, especially for the poor and the powerless (Berki, 1975). Public policy involves a variety of the two ideologies and is dependent upon the social and economic climate of the time. Except for those at the extreme far left or right, the views of most people on a given issue are a blend of liberal and socialist ideology (moderates). One would say that it does not really matter if the liberals or the socialists, or even the 'moderates', have the power, since those in power are more powerful than the rest of the people because they have more opportunities for becoming 'educated' (Dyson and Lovelock, 1975). Despite the theoretical democratic principles, such as the majority vote, real government of the people by the people and for the people has not become a reality yet (Parkin, 1973). Ironically, considering the ignorance of the people about the methods by which they are governed, they all are getting the 'democratic' government they deserve (Wilson, 1965).

ii. Context of the research

In the above section it was argued that equality dilemmas appear to be significant factors for creating different and conflicting attitudes towards educational equality. At this point of departure, the thesis analyses and defines educational equality and then applies it in the school context. The particular focus is teachers' attitudes towards educational equality and their association with their classroom behaviour. Educational equality is analysed in the three - often contradictory - models of strict egalitarian, liberal egalitarian and fair inequalitarian equality. Teachers' attitudes towards educational equality appear to be influenced by the presence of 'pupils with difficulties'.

This research is based on the Greek educational context and focuses on its compulsory stage because it has some distinct particularities. These

particularities are summarised: (1) the Greek educational system is centralised and the curriculum is fully prescribed for every grade and every school in the country ¹. There is neither streaming nor special placement (with the exception of few schools) nor any other kind of grouping according to achievement with the consequence of little age variance within grades. However, Greek parents invest considerable resources into private lessons and institutions ('Frontistiria'), which prepare children mainly for the highly selective entrance examinations of the tertiary sector of the education system; (2) there is no continuity in the changes set by educational reforms ². The Greek governments introduced new theoretical legislation, yet some items contradicted each other or did not follow the previous governments' measures. There was no clear guide to determine whether the focus should be drawn on strict egalitarian, liberal egalitarian or fair inegalitarian educational principles; (3) none of the Greek research discussed in this thesis examined teachers' attitudes and their classroom behaviour association ³. These studies did not examine the extent to which Greek teachers applied their attitudes into their classroom behaviour. It is one thing to ask teachers what they believe (their theory in action) and another to examine what they do in practice (their theory in use). There is a distinction between teachers' theories in use and their theories in action (see Chapter I, section iv) and the research findings indicate various levels of association between teachers' attitudes and their classroom behaviour (see Chapter II, section ii. b) that have not been acknowledged by the Greek researchers; and (4) the researcher's impression from observing compulsory Greek primary and secondary classrooms is that Greek teachers apply mostly traditional teaching methods, like whole class teaching with little interaction with pupils ⁴.

The key point is that there is a possible inconsistency between the Greek theoretical educational declarations and the compulsory Greek school practice. In theory, the Greek compulsory educational system applies strict egalitarian educational principles (like give access to schooling for all pupils),

¹ See Chapter III, section i, b, (b).

² See Chapter III, section i, b, (d).

³ See Chapter III, section ii.

⁴ See Chapter III, section iii.

but at the same time liberal egalitarian and fair inegalitarian educational principles are used (repetition of class for pupils who do not perform well and special provisions for pupils with difficulties respectively). Furthermore, there is evidence to suggest that the modern Greek society tends to favour the market approach in differentiation to education ⁵. That is, focus is drawn primarily on pupils' academic achievement and there is pressure on teachers by pupils' parents for results starting from the compulsory educational stage.

This research investigates the possible inconsistency between Greek educational theory and school practice by examining the following three dimensions:

- (a) Greek teachers' attitudes towards educational equality,
- (b) Greek teachers' classroom behaviour (including teachers-pupils interactions) and
- (c) associations between Greek teachers' attitudes towards educational equality and their classroom behaviour.

The data collection tools used for examining the above dimensions included questionnaires to examine teachers' attitudes towards educational equality and observations to examine teachers' classroom behaviour. The incompatibility between teachers' attitudes and classroom behaviour, though it might seem 'obvious' to some, is of great importance. If educational theory cannot be transferred into educational practice, then there are some serious policy implications. The American National Institute of Education (1975) highlights the importance of such a research in a report:

"It is obvious that what teachers do is directed in no small measure by what they think. Moreover, it will be necessary for any innovations in the context, practices, and technology of teaching to be mediated through the minds and motives of teachers. To the extent that observed or intended teacher behaviour is 'thoughtless' it makes no use of the human teacher's most unique attributes. In so doing, it becomes

⁵ For more about the market approach in differentiation to education see Chapter I, section iii, (b). For more about the application of the market approach in differentiation to modern Greek society see Chapter VI, section iii, (d).

mechanical and might be done by a machine. If, however, teaching is done, and, in all likelihood, will continue to be done by human teachers, the question of the relationships between thought and action becomes crucial.”

(p. 1)

iii. Structure of the research

As stated in the above section, the thesis examines teachers' attitudes towards educational equality and their associations with their classroom behaviour. This is done in six chapters.

The first chapter defines and analyses educational equality. It also examines teachers' theories in action, teachers' theories in use and the association between their theories in action and theories in use. The second chapter places educational equality and its association with practice into the classroom context. It focuses on teachers and investigates how their attitudes towards educational equality models are reflected in their classroom practice. The third Chapter places the research in a Greek context. This Chapter mainly seeks to investigate how are the strict egalitarian, liberal egalitarian and fair inequality models of educational equality transferred into the Greek educational system. The fourth chapter describes the methods used in the research. This research project followed the deductive research approach, because it conceptualised theory about educational equality and teachers' theories in use and action, and operationalised the theory. For doing so, the research was based on structured questionnaires and observations conducted in a representative sample of Greek mainstream teachers. The fifth chapter presents the findings of the research. The majority of teachers' attitudes favoured a mixture of fair inequality and strict egalitarian educational equality models. A minority of teachers favoured a mixture of strict egalitarian and liberal egalitarian educational equality models. Teachers applied the model of liberal egalitarian educational equality in classroom practice. The sixth chapter discusses the findings of the research. Teachers' attitudes preference for combining the educational equality models confirms the

assumptions that attitudes contain conflicting and contradictory elements; and that teachers try to resolve tensions created when meeting different pupils' needs. The Greek educational equality model is an example of a western state, which combines the models of educational equality in its legislation. In Greek school reality though, the dominant educational equality model is the liberal one. This finding is revealed in teachers' classroom practice. It is argued that the increasing application of the market approach of differentiation to Greek education is the most significant reason for explaining the dominance of the liberal egalitarian model in classroom practice. An alternative model to liberal egalitarianism is presented as well as policy implications and stimulations for further thinking and research.

CHAPTER I

What is educational equality and how is theory transferred into practice?

Introduction

In the past, education was restricted to people privileged by birth, wealth and exceptional talent combined with luck, people that, in most cases, coincided with the ruling elite. The majority of people were considered lucky if they learned even to read (Dyson and Lovelock, 1975). The institutionalisation of a kind of compulsory education for all began at the end of the eighteenth century and the beginning of nineteenth century due to the influence of the Enlightenment and the French Revolution (Bantock, 1975). By the end of the nineteenth century it was accepted that some degree of education should be available to everyone as a natural expectation and that power and privilege should be related increasingly to ability and performance and decreasingly to class (Dyson and Lovelock, 1975). The idea of a national system of education had ceased to be a dream. The twentieth century saw Aristotle's dictate for education, 'do it common to all', and Dewey's

"the breaking down of barriers"
(1955, p. 101)

become a reality, or so it seemed, along with the spreading of the ideas of democracy and socialism and the promotion of the Welfare State (Rubinstein and Stoneman, 1970).

Most contemporary societies have legislated provisions ensuring the right to education (Kenworthy and Whittaker, 2000). The United Nations (1978) in its Universal Declaration of Human Rights, UNICEF (1995) in its declaration of the Rights of the Child, and most contemporary nations have ratified the

conventions in their legislation, which give access to education, at least in theory, to all young people. Provisions and legislations regarding human rights and the right to education have also been included in the Greek Constitution of 1975 (Fifth Revisionary Parliament of the Greeks, 1975). In those declarative and constitutional texts we find some key-phrases which demonstrate the spirit that could animate school education on the way to the realisation of its aims; phrases such as:

'special protection for those with needs', 'education and care required by pupils' particular conditions', 'treatment of children on a basis of equal opportunities', 'full opportunity given to children for play and recreation', 'support for the distinguished students and those in need of assistance or special protection', 'help according to pupils' abilities', 'attainment of social progress under conditions of freedom and justice'.

The key-phrases mentioned above emphasise the need for each pupil to be treated according to his or her characteristics. This means that all pupils - both with and without difficulties ¹ - should be treated as unique individuals. Within the compulsory school system, pupils with difficulties require special attention as well as gifted or talented pupils should be accommodated according to their needs. However, any provisions for gifted or talented pupils that might be interpreted as elitist would to be rejected (Larsson, 1990).

The international developments of school education in the twentieth century parallel the national ventures of nations towards an effective political system of government, preferably democracy. Nowadays it is believed that a democratic society should provide as high a level of education as possible to all its citizens (Tarrant, 1989). Education compliments democracy, because it opens riches previously reserved for the few, to the whole of mankind class (Dyson and Lovelock, 1975).

¹ As mentioned in section i. a. (b) of Chapter II (p. 59), this research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream compulsory educational context. It is individual class and teacher based and excludes pupils with severe learning difficulties (in the UK pupils with severe learning difficulties are referred to as SLD - severe learning difficulties - or PMLD - profound and multiple learning difficulties).

These developments have taken shape in more concrete terms in statutes enacted by the legislative body of each country in the post war period. Statutes, such as 'The 1944 Education Act' [Department of Education and Science (DES), 1944], 'The Warnock Report' [Department of Education and Science (DES), 1978] and 'The 1988 Education Reform Act' [Department of Education and Science (DES), 1988], in the UK and 'The Legislative Decree 4379/1964' (Greek Ministry of Education, 1964), 'The Law 309/1976' (Greek Ministry of Education, 1976), and 'The Law 1566/1985' (Greek Ministry of Education, 1985), in Greece.

This Chapter consists of four sections:

In the first section equality is defined through the notions of strict egalitarianism and liberal egalitarianism. It is argued that equality contains both strict and liberal egalitarian values. These values may contradict each other in that the former implies equal or at least equivalent opportunities to all people and the latter presupposes that the best persons will be given the best opportunities for benefit their own and society's welfare. Affiliating equality with strict egalitarian values does not necessarily subscribe a linkage between equality and sameness but a value choice to treat people with justice and fairness according to their needs. Equality is a combination of strict and liberal egalitarianism. Where the strict egalitarian principle is rather simplistic, the liberal egalitarian principle - despite its good intentions to promote meritocracy - is unfair and promotes inequality among people. In the educational field pupils with difficulties cannot compete in equal terms with others that are socially more favoured. This results in unequal educational outcomes, despite any educational opportunities given to pupils. Therefore, emphasis is given to fair inequality, as a form of equality that includes the notion of 'fairness' in the sense that it implies special provisions for the least advantaged members of society. Fair inequality, as expressed by Rawls (1971), demonstrates that every society has to maintain a fair and decent approach to all disadvantaged members.

In the second section educational equality is analysed in terms of equality of opportunity and outcome. Equality of opportunity and outcome can be defined in different ways according to different views on socio-political matters. It is argued that if equality is to serve the people, it should not only contain the notion of equal access, but also the notion of equal respect and as far as possible, equal outcomes for all people. Regardless of the linkage between equality and education, it is concluded that a fair and decent application of equality into education is to respect all pupils according to their needs with greater concern for those not favoured by heredity and circumstance. This is the definition of equality derived from fair inequality. Teachers should be concerned for all their pupils, but special care and attention may be needed for the more disadvantaged.

The third section explores how equality applies in education through differentiation. Differentiation is defined and analysed as a means of applying 'fairness' in education. To apply fairness in education, differentiation's aim is to balance the two pairs of strict and liberal inequality, and equality of outcome and opportunity, as defined above. Two approaches for applying differentiation to education were considered. The first is the compulsory approach, which presupposes access to the same schooling for all pupils regardless their socio-economic backgrounds and supports pupils with difficulties in order to have a fair chance to compete with their 'average' and 'bright' classmates. The second approach is the market approach, which presupposes parental choice of pupils' schooling and creates different kinds of schools, according to pupils' academic level. This approach is currently applied in Western societies, like in the UK. It is argued that none of the approaches can fully serve pupils' different needs in the most efficient way. However, the market approach is criticised because it distorts compulsory education and eventually the meritocratic principle itself, since it enables pre-existing patterns of inequality to be maintained.

The final section outlines a theory about how teachers' attitudes ² are transferred into classroom practice. This section examines what theory illustrates about the association between teachers' attitudes and their classroom behaviour. In trying to analyse teachers' attitudes and their respective classroom behaviour, it is important to examine a distinction between teachers' theory of action and their theory in use (Argyris and Schon, 1974). Theory of action refers to teachers' attitudes and theory in use refers to teachers' classroom behaviour. It is of no use to examine teachers' attitudes without investigating their classroom behaviour and the extent to which teachers apply their attitudes in classroom behaviour.

i. What is equality?

This thesis analyses equality in terms of strict and liberal egalitarianism:

Popular definitions of strict egalitarianism or equity imply equal rights. Yet is that so? What does equality mean? There is confusion between the terms 'equality' and 'sameness'. Whenever 'equal' is used there is always a value comparison being made and thus by equal we mean of equal value, not identical (Hurst, 1991). To clarify, by 'equality' we mean the same privileges or rights (equal before the law) or the same strength or ability (equal to the task). According to Warnock (1975), equality presupposes that everyone should be treated as having a right, according to the rule. Therefore, strict egalitarians advocate equal rights for people in a way that people are the same (Nielsen, 1983; Nagel, 1991). This is not necessarily true, for example, concerning the above equality before the law, law could be seen,

"as a monolithic dispenser of justice to which we all are - or ought to be - equally subject."

(Stafford, 1985, pp. 137-138)

² As mentioned in section i. a. (a) of Chapter II, pp. 63-64, this research defines the term 'attitude' as teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option.

This is not the case when applied to other public functions, such as education and work. People are different and consequently we cannot expect equality of outcome, such as same intelligence, work and salary (White, 1994). At best, the same opportunities can be provided regardless of abilities and economic status. Thus equality denotes the degree of accessibility to the system by those who come from lower social and economic strata (Psacharopoulos, 1988). Hence, 'equal' is more closely associated with 'equivalent' than to the 'same'. 'Equivalent' being defined as the aspects being compared are not the same, but they have the similar value (Colbeck, 1984).

Strict egalitarianism, however, does not incorporate different term of equality like 'equivalence'. According to the strict egalitarian theory, equality has to be taken in its sharpest and purest sense that includes a conception of 'community' that is considered higher than its individual members. As Berki argues, (1975)

"equality must lead logically to community: to be truly equal with your fellows in the community you must in the last resort stop being self-regarding, stop making comparisons between yourself and the next, stop wanting individually to excel over the others in the group."

(p. 25)

It seems that strict egalitarianism expresses an aspiration for a return to a communal way of life, an example of which is the City-State of ancient Greece.

Liberal egalitarianism, on the other hand, implies the existence of an elite-state through the promotion of meritocracy (Bourdieu and Passeron, 1992). In a liberal egalitarian society the one who has the appropriate qualifications deserves the best job, salary and house. This implies that advancement is based on achievement or ability; it also presumes that the leaders of society will be the most talented achievers (Dyson and Lovelock, 1975). The meritocratic conception of equality of opportunity negates the existence of a class society; its aim is not 'classlessness' but one of giving everyone a better chance of re-classification (Entwistle, 1978). The meritocratic principle,

according to Bourdieu (1973),

“is even capable of contributing to social stability in the only way conceivable in societies based upon democratic ideals and thereby may help to perpetuate the structure of class relations.”

(p. 71)

Liberal egalitarianism assumes the continued existence of privilege, social, economic and educational inequalities, and hierarchies based on wealth, status and power (Entwistle, 1978). In other words, the liberal egalitarian principle of social mobility merely legitimises inequalities, legitimising its continued existence, providing a kind of safety valve. Following this, a liberal egalitarian society gives opportunities to all of its members to promote socially through the promotion of meritocracy.

However, even though the notion of meritocracy is supposed to be ‘fair’ and ‘socially beneficial’, there has been a debate over the definition of meritocracy and its application to practice in modern Western European societies, like the one in the UK (Brighouse, 2000, 1). On the one hand, meritocracy is a fair social mobility process because it promotes the highly able and motivated people regardless of their class background and parental support (Saunders, 1995, 1997; Bond and Saunders, 1999). The point is made that modern UK society is ‘unequal but fair’, although inequalities exist among people, all people have a ‘fair’ chance to promote their abilities, find a secure job and a high quality house. On the other hand, while meritocracy, defined in terms of ability and motivation, plays a part in determining individuals’ social mobility and class destinations, the influence of class origin and parental support remains strong (Goldthorpe, 1996; Breen and Goldthorpe, 1999). What is argued, is that children of less advantaged class origins need to show substantially more merit than children from more advantaged origins in order to gain similar class positions. Thus the UK society cannot be considered as a meritocratic, since all people do not have similar life chances. Once labelled as ‘underclass people’ it becomes more difficult to move out of it (Buckingham, 1999).

The debate over the definition and application of meritocracy creates an important question: to what extent are particular goods, or opportunities to achieve goods, unequally distributed between members of a society, and can that distribution be justified? Meritocracy was seen as 'fair competition' among individuals to reach various positions in the social hierarchy (Hammersley, 1996). However, competition does not necessarily ensure social integration at the bottom of the social ladder; if people at the bottom of the hierarchy do not perceive the unequal rewards as legitimate, the response can be apathy, distrust and lack of motivation, resulting to social instability (Andersen, 1999). Even though contemporary working and middle class individuals have more chances than in the past to achieve a minimum standard of living, mostly as a result of the absolute increase in living standards throughout the society, the fact still remains that their class positions appear to play a significant role in determining their chances (Marshall and Swift, 1993; Swift, 2000).

Considering the above, how can we apply equality in practice? The use of equality often means the expressing of the idea of human justice and fairness. It is difficult to disagree with the idea of choosing principles of justice that have, as philosophers consider, the highest acceptance, that is to say, the principles whose general acceptance in a community would bring the greatest common benefits. A community without any principles of justice to determine how its members are to conduct themselves towards one another concerning the division of goods and other matters is unlikely to be harmonious (Wilson, 1993).

Thus, it is necessary to explore some principles of justice:

Ensuring human rights for all is a 'high acceptance' principle. This is a strict egalitarian principle that includes the notion of treating everybody the same. However, it can be argued, that strict egalitarianism is not the solution for making society fairer. Does it assist the least advantaged people, who are in need because of heredity and environmental disadvantages? As they will still be least advantaged, and potential worse off, meanwhile the advantaged

people become even more advantaged. The application of the liberal egalitarian principle is another issue, the best qualified takes the best position through the application of meritocracy. However, people's differences will increase and inequality will grow since the least advantaged will not be able to compete with the others.

The solution, according to Tyler, is

"a fresh definition of social justice, for which we could turn to the philosophy of Rawls (1971) whose 'difference principle' provides a radical and yet reformist approach to the distribution of social goods."

(1977, p. 116)

John Rawls developed the concept of 'fair inequality', which promotes a kind of fair equality of opportunity. Fair equality of opportunity is a compensatory conception that goes beyond formal equality, 'intervening', according to Howe (1994),

"to mitigate contingencies that put individuals at a disadvantage through no fault of their own, such as being born with a disability or into poverty."

(p. 29)

It is a necessary step in achieving justice. Yet, fair equality of opportunity cannot by itself determine how to distribute opportunities and benefits justly. Thus Rawls used the 'difference principle' of distribution, according to which inequality can be minimised to a reasonable degree by a redistribution of society's goods and opportunities from the more advantaged to the less advantaged (Howe, 1994). The key-phrase of Rawls (1971) at this point runs as follows:

"All social primary goods - liberty and opportunity, income and wealth; and the bases of self-respect - are to be distributed equally unless an unequal distribution of any or all of these goods is to the advantage of the least favoured."

(p. 303)

In Western societies, there is a combination of strict and liberal egalitarian approaches, nevertheless a society that is supposedly democratic emphasises a fair inegalitarian perspective with the view to compensate for its disadvantaged members. Fair inegalitarianism does not neglect talented and gifted members of the society. However, it introduces a 'fair' way of re-distributing wealth and prosperity among people so all people can benefit from society's progress.

The next section places equality in the educational context including definition and analysis of educational equality.

ii. What is educational equality?

In this thesis educational equality is analysed in terms of equality of opportunity and equality of outcome.

As a starting point, most people associate educational equality with educational opportunity. Examining equality of opportunity in education, it would be simplistic to believe in a similarity of treatment for all, despite any differences among people (Wilson, 1991, 1). More appropriate would be that nobody should be denied access to education because of race, income, gender, religion, caste or social distinction. Everyone should have the right to some schooling and perhaps to higher education. However, things are not so simple and are complicated by factors such as are genetic inheritance (Jensen, 1991), family background and individual differences, which may dispose them favourably or unfavourably towards becoming educated.

At this point a distinction has been made between a 'weak' and a 'strong' definition of equality of opportunity (Hare, 1977). The 'weak definition' is that all pupils of equal ability should have roughly the same start in life. The 'strong definition' grants that ability is largely acquired, and that all pupils can become reasonably intelligent according to their family background and the social and

educational experience they receive. According to the 'strong definition' of equality of opportunity, the same should be spent on equal resources for each person's education, taking account of any special needs a person may have (Vaizey, 1966). Educational equality, in this sense, requires that different pupils should be treated differently because it requires that different pupils should be treated as worthy of equal consideration (Colbeck, 1984). Howe (1993) suggests that

"it is not the criterion of a formal system of equal educational opportunities that underlies the most defensible interpretation of the principle of equality of educational opportunity, but the criterion of educational opportunities of equal worth."
(p. 329)

To further, White (1991) remarks that

"any changes that have to do with education should rest on the consideration that every person is equally worthy of respect as an end in himself or herself."
(p. 27)

Thus, a move from the notion of 'equal access' toward that of 'equal respect', which attempts to ensure that educational opportunities have equal worth. Unequal treatment to the advantage of the least favoured will not achieve any good if it is not also rooted in equal respect for different needs, interests and capabilities. However, it must be considered that in every school, pupils bring with them their differences of genetic and environmental influences. Yet the fact remains, some pupils will have a better chance than others of winning the opportunities that are available (Mackinnon, 1986).

The second kind of equality is equality of outcome. Ideally all people ought to have, maybe entitled to have, much the same outcome in their lives in terms of education and income. However, expectations that all people will become 'successful' professionals in their lives, enter a university and be equally good at learning are unrealistic. Although all human beings are capable of learning something, there are many other things that not everyone has the ability to

learn (Wilson, 1991, 2). Equality of outcome should not be confused with equality of opportunity. It should not be implied that the non-existence of equality of opportunity is due to inequality of outcome (Burwood, 1992). Flew (1983) suggests that equality of opportunity and equality of outcome may not merely be different but incompatible, since people will eventually compete for aims that can not be achieved by all.

Regardless of the connection between equality of opportunity and equality of outcome and what the cause of the inequalities might be, some basic measures should be taken to achieve at least a minimum level of equality of opportunities in education. For instance, allocating some kinds of resources (money, teachers and time) and grants or rewards (degrees, salaries and merits) are ways of achieving the basic measures. The fact remains that the actual process of becoming educated is largely dependent on the individual. However, the allocation of equal opportunities for learning must be instituted. Education is not a cake that is divided equally. This is the 'cake' or 'social pie' theory about educational equality (Hare, 1977). According to Warnock (1975) it is as

"if it is just to give a piece of cake to each person, then the rule lays down that the cake shall be divided between those persons present."

(p. 3)

In other words, no pupil ought to receive more education than any other pupil does. If this is the case, what are we supposed to do with the talented pupils or those with 'difficulties'? The 'equipment theory', on the other hand, is based on the principle of 'the right people at the right place'. Education is not like a cake that has to be divided but like ammunition or weapons that have to be shared among soldiers (Hare, 1977). So, the best-trained soldiers will take the best weapons and most of the ammunition.

There are some practical problems arising with regards to educational equality. For example, if the objective of equality is to reduce the differences between pupils with and without difficulties, then the standards of the pupils

with difficulties will be raised at the expense of the pupils without difficulties. Cooper (1975) provides a theoretical example concerning two schools, one of which achieves higher quality than the other does as it is a better school and takes the better pupils. He refers to three ways in which schools might become equal in performance: (1) to lower standards at the better school without raising them in the worse, (2) to raise standards at the worse school without lowering them at the better and (3) to raise standards at the worse school and lower the standards at the better school. According to Cooper, only the third way is appropriate and justified to the ideal of equality in the sense that pupils' differences are to be maximally reduced. Lowering the standards of the better school is immoral, but not doing so does not bring about equality of outcome. Cooper concludes that equality of opportunity and outcome are incompatible.

Theoretically, it is possible to treat each one of the pupils as a unique case and at the same time give equal weight to the interests of each as well as secure the maximum of satisfaction for everyone. However, a problem may be arise from the community which has an interest in pupils' education that is competed and may conflict with, the pupils' interest, who are being educated (Hare, 1977). Another debate is whether 'talented' pupils should be given a more, less or an equal amount of educational resources. Giving an equal amount is a strict egalitarian argument that assumes that equality in distribution is always the fairest. The argument for less is also an egalitarian in that talented pupils already have an advantage in being more talented; equality will, therefore, be restored if the 'less talented pupils' are given an advantage, which enables them to compete on equal terms with the 'more talented pupils'. The argument for increasing 'talented pupils' resources is based on the liberal educational assumption that these pupils will be able to make better use of what they get and, therefore, could be providing a strong argument for giving 'talented pupils' all the educational resources as they can use. However, would this be fair for the disadvantaged pupils?

Tyler (1977) argues that in order to resolve this problem,

“What we need is some mechanism that would ensure that the able or affluent are not deterred from attaining while ensuring that the less able or the poor are given every encouragement.”

(p. 123)

At this juncture the issue of opportunity in its relation to distribution arises. These two kinds of equality are associated to each other in that one leads to the other: first ensure that people have the opportunity to access goods and then distribute these goods to them. However, to secure equality of distribution some restrictions on equality of opportunity must be placed. It is one thing to distribute goods to people and another to ensure that they will have equal opportunity to access them. For example, distributions of wealth among people will not mean anything unless it is based on some opportunity principles that will justify who gets what.

Tyler (1977) refers to Bowman who gives seven principles of equity in the provision of education, of which the following four are critical:

“1. Giving equal amounts of schooling (equal schooling inputs) to every individual. 2. Bringing every individual to a stipulated minimum level of performance, whatever happens thereafter. 3. Bringing each individual to the point at which his marginal ratio of added learning to inputs matches that for other individuals. 4. Providing equal opportunity for access to education whether individuals utilise that opportunity or not.”

(pp. 119-120)

Tyler (1977) proposes a reappraisal of educational policy on the basis of fairness and merit, recommending the policy-makers to:

“combine the most promising developments in pedagogy with the notion of fairness.”

(pp. 121-122)

These statements are justified by Rawls' definition of justice based on the notion of fair inegalitarianism, transposed to the school setting:

'A teacher's care and attention for his or her pupils are to be distributed equally unless an unequal distribution is to the advantage of the least favoured.'

This leads to the conclusion that education is:

"a process of achievement and personal growth, and a means for the enlargement of life chances."

(Tyler, 1977, p. 131)

Education is rightfully considered to be one of the most important aspects of human life and affects all people all over the world. The problem is that in trying to set in practice the most hopeful of the propositions arrived at, those responsible for the education confront financial difficulties that arise from the countries' budgets. In this case the problem of educational equality has a tendency to become a financial, or rather, a political problem. Consequently, all people are obliged to exercise democratic controls over their societies and ensure that wealth, ownership and political power are more equally shared far more equally. This requires the use of a different way of governing, close to what Rawls (1971) described concerning the redistribution of goods. This is a liberal point of view that, on the one hand, presupposes individual choice and freedom, and on the other, agrees with setting in practice some minimum standards of equality and justice based on human activities such as education. Hence, educational equality is conceived as the redistribution of educational care in favour of the pupils with difficulties.

Some other views from the quarters of psychology, particularly humanistic psychology, may also be illuminating on the notion of fair inequality. Maslow (1970), the main exponent of this approach, has suggested that there is a hierarchy of human needs to be fulfilled: needs for survival and safety, needs of belonging and self-esteem, needs for intellectual achievement, aesthetic appreciation, and self-actualisation. Other needs, some of them of a cognitive character, are: affiliation need (Murray H. A., 1938), the need for competency (White, 1959), the need for stimulation (Murray E. J., 1964), and the need to resolve conceptual conflict (Berlyne, 1965) and cognitive

dissonance (Festinger, 1957). Going through the manuals of Educational Psychology of the last few decades we find that in most of them motivation has a prominent place as a prerequisite for the optimum development of personality and the backing up of the learning process. Among the motivational conditions most favourable to the classroom are a friendly atmosphere and the acceptance by the teacher of all pupils for whatever each one of them is and whatever they can do. Also included are encouragement and the strengthening of self-esteem even with external motivation in the form of rewards, whenever the intrinsic satisfaction from the learning process itself is deficient.

The next section describes how educational equality applies in education. It is argued that educational equality applies in education via differentiation. First, differentiation to education is defined and analysed. Second, two approaches of applying differentiation to education are presented, the compulsory approach and the market approach.

iii. Differentiation to education. A means to educational equality?

a. Definition and analysis of differentiation to education.

When dealing with issues of practice in schools, there is a need to examine the everyday situations that test teachers' attitudes towards educational equality. The state and the teaching profession try to resolve the equality incompatibilities and tensions between strict and liberal egalitarianism and opportunity-outcome, as mentioned in the above sections, through establishing a practical model of schooling. Modern societies, like European Union and the US, presuppose universal access to schools for all pupils. The development of universal access involved a new social organisation that accommodated the goals of educational equality. The new organisation redefined educational equality from 'a common education available to all'

towards 'an equal opportunity to take differentiated courses to prepare for differentiated adult roles' (Gamoran, 1989; Oakes et al., 1992). Others define differentiation as the assigning different tasks to people according to their abilities (McGarvey et al., 1997). The inequality of economic and social position that would result from this could be justified by the fairness of pupils' chances to compete for the most advantaged positions. Oakes et al. (1992) argues,

"differentiation ... became the vehicle for gaining competitive advantage within an institution providing equal access to all."
(p. 581)

However, the use of the term 'differentiation' provokes certain questions. The fundamental question is 'should schools provide different courses of study to different groups of pupils, especially those with difficulties'? Paradoxically, schools often try to provide equal educational opportunities for all pupils, while also providing a differentiated education for individuals or groups (Stradling and Saunders, 1993). Schools are expected to bring all together pupils in a democratic society, of which they will become members, and provide them with necessary, basic skills, without (neglecting) violating the unique development of any individual pupil (Cazden, 1986). This creates a contradiction, on one hand schools are presumed to be equivalent, standardised and egalitarian settings, and on the other the public expects schools to meet each individual's abilities, needs and aspirations as well as the requirements of the economy (Entwistle, 1978). In other words, schools must provide equal educational opportunities for all pupils and simultaneously meet each pupil's individual educational needs (Varenne, 1977).

Differentiation can solve some problems, yet creates others. Theoretically, an educational system that uses differentiation to provide adequate human and material resources can ensure fair opportunity for pupils to achieve important goals. Rumsey (1981) argues that differentiation ensures equality of educational opportunity because it provides a chance for everybody to accomplish an aim. However, differentiation does not always work and raises

questions about unequal opportunities for pupils (Oakes et al. 1992). Studies of secondary schools in the US report that low-income, minority schools offer fewer advanced courses and low-income, minority pupils are disproportionately assigned to vocational and remedial tracks (streams) (Oakes, 1985; 1990). Findings of these studies demonstrate that quality teachers, materials, equipment and ability grouping create significant distribution of inequities related to pupils' achievements that are out of the control of the school.

The underlying principle of educational differentiation is that all pupils should have equal access to the school curriculum. Darling-Hammond (1994) argues that schools have a 'duty of care' and are obliged to:

"treat pupils well and responsibly, to provide them equal access to educational opportunity, to adhere to professional standards of practice, and to use the best available knowledge in developing strategies for teaching each pupil."

(p. 192)

This raises several questions: How should equality of educational opportunity be defined? What standard should be used in determining whether equality is obtained? What empirical evidence is needed to establish whether equal educational opportunity standards have been met? (Guiton and Oakes, 1995). The Office for Standards in Education (OFSTED) in the UK provides some indication of the degree of equal opportunities required of UK schools, as illustrated in the following extract from the Handbook for the Inspection of Schools (1993), some of which is applied:

"7.3 (iii) Equality of Opportunity... Evidence should include: ... b. assessment of pupils' needs within the curriculum; ... e. curriculum content and access; f. class organisation and management, teaching and differentiation."

Differentiation is given as an indicator of equality of opportunity by OFSTED. Yet the question remains: is differentiation so powerful that it can promote equal educational opportunity and transform social order? or is it so weak that it simply replicates, transmits the social order and therefore reproduces social

and economic inequalities? The effects of differentiation are still unknown and difficult to examine (Oakes and Guiton, 1995; Davies, 2000). This is highlighted in the case of pupils with difficulties, the help provided by their teachers is often teaching lessons at their pupils' level (Quicke, 1995). Such tailored lessons may work to fulfil prophecies³ about pupils by maintaining rather than improving the level of knowledge the pupils' bring to school (Greenleaf et al., 1994; Oakes and Guiton 1995; McGarvey et al., 1997).

b. Approaches of applying differentiation to education.

This research considers two approaches in applying differentiation to education: firstly, the compulsory approach and secondly the market approach.

(a) Compulsory approach of differentiation to education.

According to compulsory approach, differentiation to education is derived from the basic condition of a compulsory educational ideal that assumes all pupils are entitled to a basic education lasting at least until the age of sixteen (Husen, 1971, 1979; Ball, 1981). Since the 1920s, the principle underlying the approach in the UK, according to Tawney (1922, 1961), was that:

“the only policy which is at once educationally sound and suited to a democratic community is one under which primary education and secondary education are organised as two stages in a single and continuous process... so that all pupils, irrespective of the income, class, or occupation of their parents, may be transferred at the age of eleven from the primary or preparatory school to one type or another of secondary school, and remain in the latter till sixteen.”

(p. 7)

However, there is no universal definition of 'compulsory education' (Benn and Chitty, 1996). For some, a compulsory schooling system implies a school open to all pupils drawn from a certain district (Ball, 1981; Shaw, 1983). For others,

³ For more about self-fulfilling prophecies, see Chapter II, section i. b.

it signifies the organisationally undifferentiated nine-year school (Freiderikou, Folerou-Tserouli, 1991). The basic characteristic of a compulsory school is the reflection, in a representative way, the composition of the community outside the school and its offerings should vary enough to meet a broad range of needs (Husen, 1971; 1979). Accordingly, the compulsory school can be related to the aim of broadening opportunities and opening up educational careers, especially for pupils coming from disadvantaged families (Passow, 1971).

The compulsory school framework does not adhere to ability grouping since the basic aim is (1) equalising opportunity at an early stage and (2) differentiating the offerings of the educational system at a later stage to promote pupils' abilities and interests in the best way possible (Weeks, 1986). In order to do so, a concept of educational equality of opportunity has to be followed; geographic and economic barriers should be removed or reduced in order to give all pupils, irrespective of social background, the same chance to compete in climbing the educational and social ladder (Husen, 1975). In practice, the concept of educational equality means that teachers provide all pupils with the opportunities they require in order to profit in an efficient way from the education system offered (Husen, 1979). This does not merely mean only providing every pupil a formal equality in material terms (such as free books), but more importantly assisting pupils who need help (such as compensatory education programs for those with environmental disadvantages) (Husen, 1971; Passow, 1971).

A compulsory approach applies differentiation to education by giving more chances to pupils who come from disadvantaged social backgrounds to improve their status (Brighouse, 2000, 2; 2001). With regards to pupils with difficulties, increased attention and assistance is needed and this can at least be provided during the stage of compulsory education. As stated by Rawls,

"in order to treat all persons equally, to provide genuine equality of opportunity, society must give more attention to those with fewer native assets and to those born into the less favourable social positions. The idea is to redress the bias of

contingencies in the direction of equality. In pursuit of this principle greater resources might be spent on the education of the less rather the more intelligent, at least over a certain time of life, say the earlier years of school.”

(pp. 100-101)

(b) Market approach of differentiation to education.

There has been some dispute over the use of the compulsory system mentioned in the above section. One key pedagogical issue, which was raised by the three ‘Black Papers’ prepared by anti-compulsory educators in the UK, is extent that the compulsory system is lowering educational standards (Cox and Dyson, 1971). The Black Papers claimed that compulsory schools are ‘nothing but a disaster’ which create inequalities concerning the treatment of more able pupils. They favoured of segregated schools that separated able pupils from pupils with difficulties. Their starting point was social-political-economic one that implied a purely selective criteria among pupils based on ability, such as test scores, school marks and examinations. To varying degrees, the Black Papers’ criteria correlate with social background variables, such as parental education and socio-economic status, and therefore, selection would result in a significant tendency to give precedence to pupils with more favourable home backgrounds (Apple, 1989). Hence, inequality on many different levels is promoted.

It is important to note that during the eighties the conservative party in the UK shared these views (Hattersley, 1982). This resulted in introduction of the market approach in the UK education, see the 1988 Education Reform Act (Department of Education and Science DES, 1988). The market approach toward education is based on the assumption that market equilibrium defines social good and selects according to natural talent (Friedman and Friedman, 1979; Barton and Slee, 1999). Markets are thus claimed to be the most efficient mode for allocating resources, responding to individual need, as Henig (1994) points out,

"Markets, it has been argued, can be more democratic than democracy itself".
(1994, p. 5)

The consequent implication was that individual schools were better able to make decisions about their own priorities and activities than the bureaucratic local councils or the Ministry of Education (Tooley, 1996). Moreover, the increased power given to parents about the particular school they wished their children to attend, was designed to increase quality through competition between schools and pupils (White, 1988; Bradford, 1991). Consumer choices within market were expected to increase quality. Quality was perceived as measurable, or at least identifiable, by performance on certain predetermined indicators of quality such as examination results (Evans and Lunt, 1994). These kind of indicators refer to 'product' criteria of evaluating education, which refer to outcome only; whereas, 'process' criteria involve factors related to the capacity for human relationships, such as the happiness of the child (Elliot, 1982).

Studies in the UK in the early 90s have provided evidence that parents were more concerned with 'process', rather than 'product' criteria (Alston, 1985; Boulton and Goldron, 1989; Hunter, 1991; Woods, 1992; West, 1992, 1, 2; Webster et al., 1993). However, the trend has changed in the mid and late 90s. David et al. (1994), Carroll and Walford (1997) and Woods et al. (1998) provide evidence that suggests an increase in the emphasis given to examination results by parents. For many parents, schools now have to display that their examination results are above the 'acceptable minimum' before they become potentially candidates. Therefore, the focus is drawn toward academic-centred factors, rather than child-centred factors.

The improvement of the academic performance of their pupils is a valid pursuit. However, the issue is that academic performance seems to be becoming the one and only way in which schools judge themselves and expect others to judge them (Walford, 2001). This decreases the emphasis given to social and cultural activities and also implies that schools can be ranked within a single hierarchy (Evans and Lunt, 1994). The publication of league tables by

the press and national evaluations communicated to parents has further increased hierarchisation among schools (Broccolichi and van Zanten, 2000). Thus, rather than resulting in greater diversity of schooling within the UK, greater choice has led to greater uniformity and conformity. Schools in the UK have attempted to become more like each other, they are either 'better' or 'worse' than competitor schools based on the criterion of academic performance (Reay, 1998).

Competition between schools creates a more fragmented, polarised and selective culture, in which there is no room for promoting solidarity and mutual respect among members of the society (Lauder et al., 1999). Bradford (1995) argues that competition between schools in the UK has produced political, educational and social divisions. Diversification of the English educational system can potentially lead to social stratification and distort the meaning of the compulsory education (Bradford and Burdett, 1989). The market approach distorts compulsory education and eventually the meritocratic principle itself, as it enables pre-existing patterns of inequality to be maintained (Walford, 1994; Ahonen, 2000). In the context of competition between schools it is clear that not all pupils are equally desirable (McNeil, 1986; Evans and Lunt, 1994). The most sought after category is pupils with good scholastic records; they are considered to have both worthwhile prospects and potential 'tops of the class,' who will function effectively from the points of view of the administration and teaching staff by serving as markers of school quality (Barton and Slee, 1999). Moreover, the least desirable pupils were the pupils with difficulties, who are excluded from the 'good' schools and attend schools in socially deprived areas, characterised by declining resources and school achievement (Lauder et al., 1999; Ahonen, 2000).

The next section analyses the theory concerning the extent to which teachers' attitudes are translated into action. It is argued that the analysis and definition of educational equality is of no use, without investigating how teachers' attitudes apply in the school context.

iv. From theory to practice

The previous section explored educational equality and placed it in the school setting. What is actually happening in schools and classrooms may vary from theory. Teachers have their own attitudes and values, but their application in practice may differ.

In attempting to analyse teachers' attitudes and classroom behaviour, the important distinction between theory of action and theory in use, as defined by Argyris and Schon (1974), is of value. When teachers are asked how they would behave under certain circumstances, the answer usually give is their 'espoused theories of action' for that particular situation. This is the 'theory of action' that is communicated to others. However, the theory that governs their actions is their 'theory in use'. The 'theory in use' may or may not be compatible with their espoused theory of action. Furthermore, teachers may or may not be aware of the incompatibility of the two theories. When teachers are asked about their theories in use, a number of contradictions might take place. A theory in use can be constructed from observations of teachers' behaviour. Constructions of theories in use are like scientific hypotheses: the constructions may be inaccurate representations of the behaviour they claim to describe.

To make a distinction between theory of action and theory in use, a clear definition of theory in use must be employed. What is the status of a theory in use? According to Argyris and Schon (1974), the status of a theory in use is in terms of existence and inference. How do we know that teachers' theories in use exist if teachers cannot state them? Although it is argued that teachers' theories in use are manifested in behaviour, sometimes a theory in use exists although the behaviour that ought to manifest it does not appear. For example, teachers intend to do A, but something prevents them from doing it. If, then, we conclude that teachers have their theories in use, that they cannot state and according to which they do not behave, in what sense does the theory in use exist? There is also the problem of inference. What are the ground rules

for implying teachers' theories in use from behaviour? If the manifestation of teachers' behaviour does not appear, how can we imply their theories in use?

There are three options when trying to answer these questions: (1) we know only what we can state, implying that teachers' attitudes could be measured only by asking them. This simplistic argument does not consider the distinction between teachers' espoused theories of action and theories in use, which argues that teachers' behaviour may be incompatible with the theories of action they espouse; (2) we only know what is manifested by behaviour, implying that teachers' theories in use are constructs designed to account for patterns of behaviour. This does not account for those situations in which teachers fail to behave according to their theories in use yet still hold these theories in use. Consider some teachers who begin teaching according to their theories in use but they cannot complete the action because of various reasons their behaviours may show a conflict of theories in use; (3) we know more than we can tell and more than our behaviour consistently shows implying implicit, or tacit knowledge (Polanyi, 1967). Tacit knowledge is what is done without managing to explain how we do so. Polanyi (1967) offers a useful perspective on the problems of existence and inference as applied to theories in use. For example, if some teachers know their theories in use tacitly, these theories exist even when teachers cannot state them and when they are prevented from behaving according to them. So when teachers formulate their theories in use, they are making explicit what they already know tacitly.

Teachers may not know the explicit, and supposedly correct theory in use but they can detect deviations from correct performance and can correct any mistakes. For example, some teachers may help a pupil link components of behaviour already included in the pupil's repertoire or some teachers may put a pupil into situations that require a performance much like one the pupil already knows. If teachers state explicitly their theories in use, they can improve their teaching skills. However, if teachers are performing ineffectively, or if others are aware of their ineffectiveness and not explicitly stating their

theories in use, this allows conscious criticism (Argyris and Schon, 1974). Teachers may not be willing to behave differently until they have examined their explicit theories in use and compared them with alternatives. Teachers may be unable to test their theories in use until they have made them explicit.

Conclusions

Equality's theoretical substantiation and its applicability in the educational field were examined. Theoretically, equality is analysed in two pairs (strict egalitarianism-liberal egalitarianism and opportunity-outcome) each pair often being incompatible. Tensions are created between strict egalitarianism-liberal egalitarianism and opportunity-outcome when different pupils' needs are met. The strict egalitarian principle is rather simplistic and the liberal egalitarian generates confusion. The confusion of the liberal egalitarian principle - despite its good intentions to promote meritocracy - results from its unfairness and promotion of inequality among people. In the educational field, pupils with difficulties cannot compete in equal terms with others that are more socially favoured. This results in unequal educational outcomes, despite any educational opportunities given to pupils. An alternative way of resolving these tensions was proposed by redefining equality based on a fair inegalitarian principle. Accordingly, teachers could provide more attention to the least favoured pupils, without neglecting the gifted and talented ones.

It was argued that differentiation to education aims at meeting different pupils' needs and promoting a sense of 'fairness'. However, there are different interpretations and approaches of differentiation to education. This research considered the following two: the compulsory approach and the market approach. Compulsory approach of differentiation to education means applying in school practice fair inegalitarianism, as analysed in the section i of this Chapter. Fair inegalitarianism defends a concept of equality in education that goes beyond strict and liberal egalitarianism, and includes a sense of 'positive discrimination', by giving more to those who have less (Mellizo-Sotto,

2000). Furthermore, a key point in applying the compulsory approach of differentiation to education includes

“the task of meeting individual educational needs in the social context of providing education for all.”

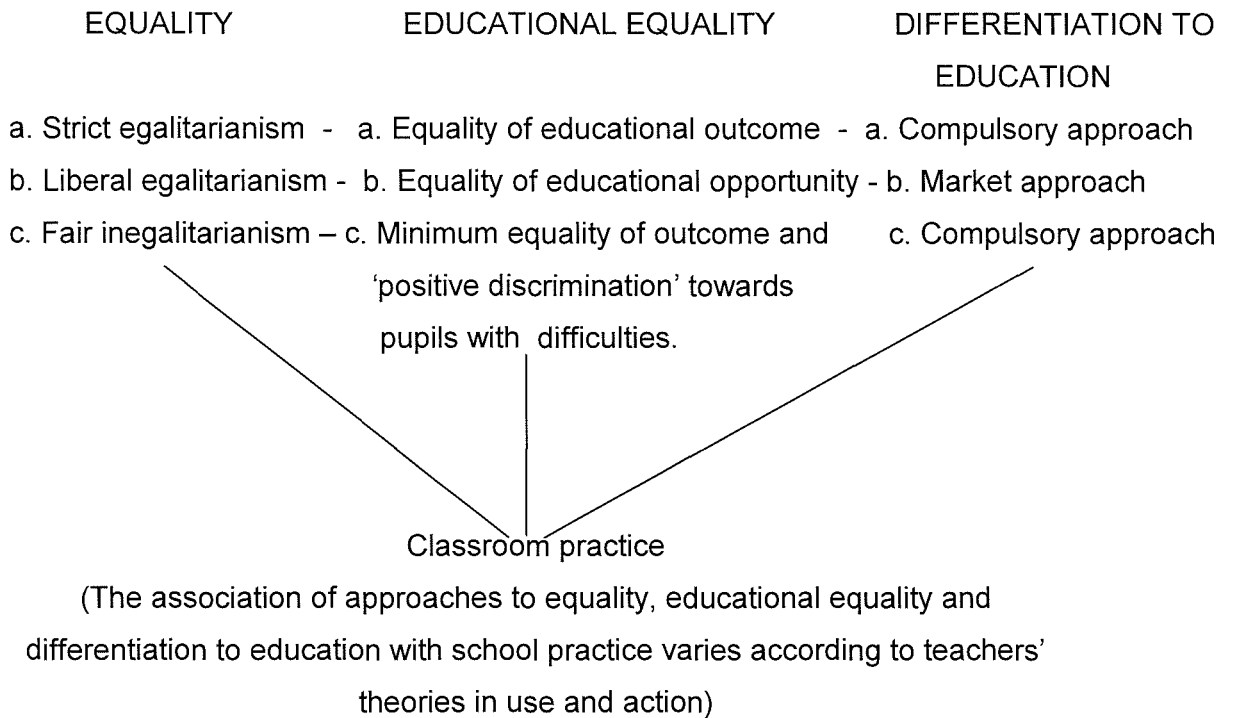
(Norwich, 1994, 2, p. 289).

On the other hand, the market approach questions the context of providing education for all and the sense of all pupils being a participating member of a valued social good, relating with other pupils in schools and classes. It favours use of segregated schools that separate able pupils from pupils with difficulties. Market approach presupposes that only segregated schools can be ‘effective’ and only in that way meritocracy can be promoted, since the more able pupils will be able to promote their abilities. It was argued though, that market approach distorts compulsory education and the intention of the liberal egalitarianism to promote meritocracy, since it enables pre-existing patterns of inequality between pupils to be maintained.

However, teachers may not apply the concepts of strict and liberal egalitarianism and fair inequality in their classroom behaviour. Teachers’ attitudes and their respective classroom behaviour may be incompatible. Teachers may explicitly communicate their espoused theories of action but the theories that govern their classroom behaviour are their implicit theories in use. There could be an incompatibility between the two theories, which can be acknowledged by observing teachers’ classroom behaviour.

The following figure summarises the main points of this chapter:

Figure 1: Approaches to equality, educational equality and differentiation to education and their application to school practice.



The next chapter focuses on teachers and intends to investigate how their attitudes towards educational equality models mentioned in this Chapter, are reflected in their attitudes and their interactions with pupils with difficulties. The next chapter examines the literature concerning: teachers' attitudes towards pupils with difficulties; teachers' classroom behaviour; association between teachers' attitudes and their classroom behaviour; factors that may influence teachers' attitudes, classroom behaviour and the association between them; and some of the teachers' roles and options that appear to influence their attitudes and their classroom behaviour.

CHAPTER II

Teachers' attitudes and their association with classroom behaviour

Introduction

The school, as a congregation of pupils, is in some ways a miniature of the section of society from which the pupils come. In an ordinary compulsory school it is likely that pupils are normally distributed according to their social origin, physical condition, abilities and school attainments. Inhabiting the same school, all pupils are supposed to receive equal access and opportunity to the educational benefits offered by that school. Educational equality is set in practice on the condition that all pupils are treated according to their own needs. The question, which arises, is what do teachers believe and how do they apply educational equality in their classroom behaviour? Do teachers have more positive attitudes towards pupils with difficulties or not? And more importantly in classroom practice, do teachers favour pupils with or without difficulties or they show the same attention to all pupils?

What is occurring within schools at present heavily relies on academic-based of types of learning abilities. These abilities are dependent on various factors, which include hereditary, socio-economic, cultural, developmental as well as their combination. Teachers can do virtually nothing to counteract the negative influence of these factors. Besides, each pupil is a unique individual, having his or her own system of attitudes and expectations regarding the teacher's profession and other pupils. How then, do teachers conceive of educational equality in view of pupils' unequal backgrounds? They may interpret it by distributing their attention to their pupils (1) equally, irrespective of their abilities and disabilities (a strict egalitarian model), (2), proportionally, according to the abilities of their pupils: the higher the abilities, the higher the educational provisions (a liberal egalitarian model), and, finally, (3) inversely

proportional to the abilities of their pupils, for example, the lower their abilities, the higher the educational provisions (a fair inegalitarian model). The teaching profession has confronted these models, yet the problem is that there are many adverse interrelated factors, some of which are imponderable, that affect the way that the models of educational equality are put into action. These factors have repercussions on both teachers and pupils with difficulties and on the relations between them.

What are the most significant factors that influence teachers' attitudes? Teachers' attitudes are influenced by the presence of pupils with difficulties in the classroom, background factors (teachers' age, gender, teaching experience and the school region where they teach), the use of school aims, integration, inclusion and grouping, competition and use of marking. The way teachers conceive of and apply in practice educational equality, as defined in the previous chapter, is a matter of great importance. If teachers do not apply in classroom behaviour what they believe, then educational changes may be needed.

This chapter presents UK, US and international research findings concerning teachers' attitudes and their correlation with their classroom behaviour. The research findings presented were obtained from two main sources. Firstly electronic journals' providers, like Catchword and Taylor and Francis Group. Secondly, bibliographic databases, like the British Education Index (BEI), the Australian Education Index and the American Education Index (ERIC).

This Chapter consists of three sections. The first section refers to teachers' attitudes to pupils with difficulties. The second section deals with teachers' classroom behaviour, teachers' attitudes and the association with their classroom behaviour, and factors that may influence teachers' attitudes and classroom behaviour. The third section includes teachers' roles and options in class.

The term 'attitude' and 'pupils with difficulties' are analysed and defined. As mentioned in section i. a. (a) of this Chapter (p. 59), this research defines the term 'attitude' to mean teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option. Attention is drawn to the attitude's cognitive and evaluative elements. The reference to 'pupils with difficulties' is important because teachers' attitudes and classroom behaviour are influenced to a large extent by the presence of such pupils in class. 'Pupils with difficulties', according to the literature from the UK and the US, suggests that there are different definitions and disagreements among educators about possible factors that may cause their difficulties. As mentioned in section i. a. (b) of this Chapter (pp. 63-64), this research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream compulsory educational context. The definition of 'pupils with difficulties' is individual class and teacher based and excludes pupils with severe learning difficulties. In the UK pupils with severe learning difficulties are referred to as SLD - severe learning difficulties - or PMLD - profound and multiple learning difficulties (Croll and Moses, 1985; Norwich, 1990). Teachers' attitudes towards pupils with difficulties can determine the kind of educational equality discussed. For example, If teachers think that more attention should be given to pupils with difficulties, this indicates a favourable attitude towards fair inequalitarian educational equality. Conversely, if teachers think that more attention should be given to pupils without difficulties or the same attention should be given to all pupils, then it implies a favourable attitude towards liberal or strict egalitarian educational equality respectively. Findings indicate that teachers are generally positive towards pupils with difficulties. However, they are sceptical over the progress of such pupils in class. Furthermore, there is evidence to suggest that teachers may create 'self fulfilling prophecies' towards pupils with difficulties, which might lead the latter to academic failure.

Following from the above, focus is drawn to teachers' attitudes and the correlating relationship to their classroom behaviour. Literature review

concerning teachers' classroom behaviour is presented. It is interesting to note from teachers' classroom behaviour that teachers differentiate in their interactions with their pupils, favouring pupils without difficulties. Also presented are the research findings that suggest that there is an association between teachers' attitudes and their classroom behaviour. Research findings indicate various levels of association between teachers' attitudes and their classroom behaviour ranging from inconsistency to moderate consistency. Finally, factors that may influence teachers' attitudes and behaviour are analysed. The factors concerned are: mainstream and special school teachers, national context, advantaged and less advantaged school regions, contextual factors, teachers' ethnicity, gender and age. Mainstream classroom teachers working in less advantaged schools have more positive attitudes towards pupils with difficulties and therefore favour the strict egalitarian and fair inegalitarian models of educational equality.

The research also examines teachers' roles and options in the compulsory ¹ school mainstream classroom, as derived from the educational equivalent Hippocratic oath. This includes an evaluation of their options in teaching, analyses ways of managing their classrooms and criticises some of their teaching methods. It is argued that teachers' attitudes towards school aims, use of integration, inclusion and grouping in schools and the use of competition and marking appear to influence their attitudes towards the strict egalitarian, liberal egalitarian and fair inegalitarian educational equality models. This section argues that teachers' positive attitudes towards pupils' academic achievement, ability grouping, use of competition and marking in the classroom are indicators of favouring the liberal egalitarian model of educational equality. On the other hand, teachers' positive attitudes towards pupils' social development and mixed teaching and teachers' negative attitudes towards use of competition and marking in the classroom are characteristics of favouring the strict egalitarian and fair inegalitarian models of educational equality.

¹ For more about the compulsory education see Chapter I, section iii, b (a).

i. Teachers' attitudes towards pupils with difficulties: a challenge to and a test of educational equality.

a. Definitions and analyses of the terms 'attitude', 'pupils with difficulties' and 'factors that may cause pupils' difficulties'.

(a) What is 'attitude'?

Attitude is defined as

"a state of feeling or mind about a person or situation".

(New Riverside Dictionary, 1984, p. 47)

More precisely, an attitude is a state of readiness, a tendency to act or react in a certain manner when confronted with certain stimuli. As Shaw and Wright (1967) state,

"attitudes, the end products of the socialisation process, significantly influences man's responses to cultural products, to other persons, and to groups of persons."

(p. 1)

Individual's attitudes are present but dormant most of the time; they become expressed in speech or other behaviour only when the object that stimulates the attitude is perceived (Oppenheim, 1992). Attitudes are not simply moods or affective reactions presumed to be somehow caused by external stimuli, but a reference to some issue or object is part of the experience. In a broader definition proposed by Triandis (1971),

"an attitude is an idea charged with emotion that predispose a class of actions to a particular class of social situations."

(p. 2)

According to Baker (1992), there are a number of reasons why attitude is a valuable concept and a central explanatory variable. Baker highlights three

reasons for the importance of attitudes: (1) attitude's close connection to individual construct systems; attitude is not a jargon word invented by specialised psychologists that has narrow utility within a small group of people, but is a term in common use; (2) attitude's value as an indicator of viewpoints in the community: a survey of attitudes provides an indicator of current community thoughts and beliefs, preferences and desires; and (3) attitude's centrality in psychological theory and research.

Another issue that arises in the consideration of attitudes is whether or not attitudes have identifiable elements. Attitudes contain three elements: affective elements (evaluative feelings), cognitive elements (opinions) and behavioural elements (statements of intent) (Kiesler, 1969; Cohen, 1980). The relationship between these elements is unclear (Eiser, 1990). This ambiguity enables attitude theorists either to treat attitudes as internally consistent structures, or as clusters of essentially distinct elements (Fasold, 1984. Baker, 1992). This research focuses on attitude's affective and cognitive elements. This focus acknowledges the evaluative dimension of the attitude and focuses on attitudes' cognitive element. Therefore, the term 'attitude' maintained in this research examines teachers' beliefs about educational issues. The behavioural element of the attitude is not used because the aim is to analyse teachers' opinions and then investigate, through classroom observations, the extent to which they are transferred into classroom practice. Within this research, teachers' attitudes refer to the tendency to evaluate an object by expressing an opinion. For instance, teachers might agree or disagree to a statement or state their preference to a given option.

When defining teachers' attitudes, Alexander's (1984) definition is employed, which states that teachers' attitudes include a

"network of beliefs, values and assumptions about pupils, learning, teaching, knowledge and the curriculum."

(p. 14)

Teachers' attitudes may echo philosophical or political views or may have been formed through the experiences of teachers as pupils. However, according to Singh (1991),

"there is no clear agreement, even among teachers sharing the same political ideology, as to what constitutes good educational practice."

(p. 245)

So even between teachers who share the same political views there might be disagreement concerning the translation of these views into classroom practice. This research defines the term 'attitude' as teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option. It acknowledges the evaluative dimension of attitudes and focuses on attitudes' cognitive element. In other words, the term 'attitude' in this research deals with teachers' beliefs about educational issues. It is not concerned with the behavioural element of attitude because it seeks to analyse teachers' opinions and then investigate the extent to which they are transferred into classroom practice.

(b) What is meant by 'pupils with difficulties' and what factors may cause pupils' difficulties?

Pupils are different in a variety of ways. Moreover, every pupil is unique, as he or she develops in a particular way, combining inborn attributes and the environmental factors that result a unique human being. At the extremes of a wide range of individual differences there are the pupils termed 'special' or 'exceptional' (Yelon and Weinstein, 1977). There are pupils who are exceptionally 'talented' ('gifted') and others who have difficulties. The pupils whom teachers refer to as 'pupils with difficulties' are different in a distinctive way and their development does not follow the 'normal' developmental patterns. Among the pupils with difficulties are included the 'physically handicapped', 'mentally retarded', 'emotionally disturbed', 'learning disabled', and 'behaviour problem' pupils. Pupils with difficulties are supposed to belong to a wide category of pupils with 'special needs'. Emotional problems may also lead to other types of difficulties and vice versa. Pupils exhibiting aggressive,

disruptive, and oppositional behaviour may be equally described as emotionally or behaviourally disturbed (Knoblock, 1983). In the Warnock report (UK) the term 'pupils with learning difficulties' (ld) was used to describe pupils who had been previously categorised as educationally subnormal and were treated in remedial services of the communities. 'Pupils with learning difficulties' replaced the previous term of 'educationally sub-normal' or ESN(M) [DES (The Warnock Report), 1978]. These categories are problematic, simply because success and failure in learning are relative. In a professional family a pupil who does not secure a university place may be regarded as 'stupid'; or another case, a pupil who can read and comment on the sport pages of a newspaper may be considered 'bright' (Cashdan, 1972). So, it is understood that such terms as 'stupid', 'bright', 'dull' are all frequently used both in everyday life and in psychology, but do not have a precise scientific meaning. According to Adams et al. (2000),

"The central thrust (of Warnock Report) was the reconceptualisation of special education, at that time largely equated with education provided in segregated special schools, to special provision provided for children with SEN (Special Educational Needs), many of whom were and are educated in mainstream schools"

(p. 234)

Using different terms does not necessarily avoid the stigmatisation of pupils. According to Solity (1991), in the UK context the different use of a term is the result of a sophisticated use of labels. Solity states:

"could it be that pupils deemed idiots through government legislation in 1913, who were then described as severely subnormal in 1945 and became educational subnormal in 1962, are now known as pupils with special needs?"

(p. 16)

In trying to find adequate, 'scientific' definitions for 'pupils with difficulties' results in labelling pupils. Labels reduce a pupil, a complex human being with many needs, to a single category; not only are these categories overwhelmingly negative, resulting in discrimination and prejudice within

school and beyond, but they are often wrong (O'Leary and O'Leary, 1977). This occurs because, according to Yelon and Weinstein (1977),

"the specific label given to a pupil may depend on who is doing the labelling."
(p. 421)

Besides the terminology problems, there are widely divergent estimates of the incidence of learning and behaviour disorders on offer, depending on who evaluates the pupil and what diagnostic criteria are used (MacAuley and Johnson, 1993). In the UK and the US a variety of behaviour rating scales, standardised testing instruments, physical examinations, and direct observation systems have been employed and the results of which have been reported in terms of mild, moderate and severe learning and behavioural disorders as well as in terms of traditional psychiatric labels such as schizophrenia, autism, and depression (Rutter, 1967; Kelly et al. 1977). A large proportion of 'pupils with difficulties' seem to need support for rather short periods of schooling, thus their main education would be the responsibility of mainstream class teachers (Ireson et al. 1989). 'Pupils with difficulties' are educated in their regular classes in mainstream schools, so the question of removing them elsewhere does not arise (Chazan, 1994). Pupils who show under-reactive internalised behaviour problems, such as withdrawal, present a challenge to their teachers, to the extent that their transfer from the normal class is called for. Pupils who occasionally exhibiting milder forms of overactive, externalised behaviour problems, such as physical aggressiveness or hyperactivity, can mostly be coped within the normal classroom setting (Cooper, 1989). With this optimistic point of view, researchers have sought the assistance of classroom teachers, parents, and mental health professors - including psychologists, counsellors, social workers and psychiatrists - to determine the mental health of pupils and young people (Norwich, 1990). However, with regards to analysing factors that may be responsible for causing pupils' difficulties, the situation is less clear.

In the US and the UK, the categorising of the factors that may cause pupils' difficulties is inconsistent, leading to a range of considerable factors such as:

biological disorders and diseases, dysfunctional family relationships, negative cultural influences and undesirable school experiences (Hallahan and Kauffman, 1988). Another, more analytical, classification of the causes responsible for difficulties could include physical or health problems (like cerebral palsy, epilepsy, diabetes, or some form of paralysis), sensory deficits (like impaired vision or hearing) and problems in speaking due to physical or psychological causes (Mongon et. al, 1989). For some pupils their behaviour prevents them from learning efficiently in a regular classroom. In the UK previously, these pupils have been called socially maladjusted or emotionally disturbed (Solity, 1991). A small group of pupils may have specific learning disabilities, such as difficulty in one area like reading, written expression, or computation. Other groups of pupils may have learning problems in all areas (Norwich, 1990).

Social factors are considered to have a specific significance. Thus, the poor progress of pupils with difficulties may be attributed to low income, residence in a slum neighbourhood, an unstable family organisation, absence of the father or mother, a peer group that does not value school success, and in some cases, inadequate nutrition of the individual pupil (Kagan, 1971). It may be the case that many of the pupils with difficulties may come from families that do not form into associations and pressure groups. Their parents may be unemployed, on low income, or dependent on social security; many may live in overcrowded conditions in poor quality housing and have long-standing health problems (Ericson, 1987). Some members of these families could have experienced school failure and rejection when they were pupils. Legal, financial and social pressures make it more likely that pupils with mild difficulties will appear with increasing frequency in regular classrooms; primarily because of their family and social backgrounds, and secondly because of their low achievements (Mongon et al. 1989).

In the majority of cases there is no conclusive evidence that any one of the described factors is directly responsible for disorderly behaviour (Ericson, 1987). Usually a combination of factors contribute to the development of a

behaviour problem and in most, if not all of cases, teachers can exercise only a limited influence on biological, family and cultural factors (MacAuley and Johnson, 1993). In terms of previous undesirable school experiences, teachers are clearly familiar with the ultimate consequences (Fedoruc and Norman, 1990). For effective cures diagnoses must be accurate, caution should be taken about simple plans or devices that promise to solve 'the problem', when the fundamental nature of the problem is still unclear (Kagan, 1971). Particularly in the case of borderline conditions - where it is not clear whether the signs of a negative condition are indicative of a disorder or not. According to Norwich (1990),

"it depends on what the needs are seen to be, what social arrangements there are for meeting the needs of persons concerned, and which occupational group takes responsibility for such provision - for example, medical doctors, religious officials, educators, therapeutic professionals or social workers."

(p. 30)

The above section made two points, concerning definitions of 'pupils with difficulties' and possible causes of their difficulties. First, that the UK and US literature review related to pupils with difficulties' definitions appears to be inconsistent and for that reason unsettled. This research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream compulsory educational context. This definition is individual class and teacher based and excludes pupils with severe learning difficulties. In the UK pupils with severe learning difficulties are referred to as SLD - severe learning difficulties - or PMLD - profound and multiple learning difficulties (Croll and Moses, 1985; Norwich, 1990). Since there are no Greek standardised tests for identifying 'pupils with difficulties', the research depended on teachers' interpretations of their pupils in order to create an operational definition of 'pupils with difficulties'. The definition is class and teacher specific. The research included observations in mainstream primary and secondary Greek classrooms and in each classroom a number of pupils was identified by one teacher as having learning difficulties (mostly in basic curriculum subjects like language and mathematics). Pupils

with severe learning difficulties were not included in the identified pupils ².

The second point was that there is disagreement in the UK and US literature review concerning the factors that may cause pupils' difficulties. Regardless, teachers themselves may contribute to these factors by their attitudes towards pupils and their classroom behaviour and this will be discussed in the following sections.

b. Teachers' attitudes towards pupils: are teachers more or less positive towards pupils with difficulties?

Regular educators are increasingly being called upon to meet new institutional and management challenges. These challenges mainly relate to the presence of pupils with difficulties in ordinary classes. The positive attitude of teachers towards the mainstreaming of such pupils is a prerequisite of successful integration and inclusion programs (Hayes and Gunn, 1988). A large-scale UK based study of special needs provisions in junior classes has suggested that teachers, while their attitudes to low-achieving pupils were positive, were pessimistic about the ability of such pupils to derive benefit from increased special needs provision in the mainstream class (Croll and Moses, 1985). In another investigation carried out in the US, teachers seemed to become more positive in their attitudes after receiving extended training (Horne, 1985). Avramidis et al. (2000) have provided evidence from the UK that show the importance of professional development in the formation of positive attitudes towards integration and inclusion of pupils with special needs in mainstream classrooms. In particular, teachers with university-based professional development tended to hold more positive attitudes and to be more confident in meeting the requirements of students with special educational needs.

However, Scruggs and Mastropieri (1996) used twenty-eight survey reports in which ten thousand and five hundred sixty teachers from the US, Australia and Canada were surveyed regarding their attitudes towards the mainstreaming of pupils with difficulties. The findings suggest that the majority of teachers agreed with the general concept of mainstreaming and a slight

² For descriptive details of the identified pupils see Chapter IV, section iii, f, pp. 159-160.

majority was willing to use mainstreaming practices in their classes. However, a substantial minority believed that pupils with difficulties would be disruptive to their classes or demand too much attention. Teachers on the whole seemed to be more positive concerning the mainstreaming of pupils with mild difficulties than pupils with more severe difficulties, apparently because it affected teachers' ability to carry on their teaching mission for the entire classroom (Scruggs and Mastropieri, 1996). According to Scruggs and Mastropieri, the lack of improvement in teachers' attitudes towards mainstreaming over time may suggest that teacher education programs are not as effective as two decades ago - at least as far as the US, Australia and Canada are concerned.

The practice of integrating and including pupils with moderate difficulties into regular classrooms has been justified, to a large extent, by arguments based on the social and emotional benefits to pupils with difficulties (Roberts and Zubrick, 1992). These arguments include removing the stigma associated with segregated placements and enhancing the social status of the pupils with difficulties with their peers without difficulties (Madden and Slavin, 1983). In a study conducted in Australia, Roberts and Zubrick (1992) found that teachers' attitudes towards integration and inclusion represented a global attitude towards a particular type of educational placement for pupils with difficulties, rather than an attitude towards an individual pupil with difficulties. However, a teacher's attitude towards an individual pupil would be more relevant than his or her general attitude towards having pupils with difficulties inside the class.

A study by Smith et al. carried out in the UK (1989), teachers showed predictable patterns of bias towards pupils with difficulties. In a US research study conducted by Coleman (1986) it was concluded that pupils with difficulties were rated as the least accepted and most negatively stereotyped of all exceptional pupils. Landon and Mesinger (1989) concluded that

“even the best among regular educators have a limited tolerance of certain maladaptive behaviours.”

(p. 248)

Once a negative attitude towards a problem pupil develops, that attitude remains unchanged despite documented behavioural improvement (Lewin et al. 1983). Evidence from the US (Alexander et al., 1987) suggests that high-status teachers experienced special difficulties relating to minority youngsters. They perceived minority youngsters as lacking in the qualities of personal maturity, held lower performance expectations of them, and evaluated the school climate as much less favourable when working with such pupils. Similarly, US findings indicate that low socio-economic status and poor classroom behaviour are often combined and result in the placement of pupils in special classes because there is an unconscious bias against lower class pupils on the part of middle-class teachers and administrators (Rubin et al. 1973). When this occurs, teachers may not see a pupil's difficulty in school as something to be changed and if it is recognised, then it will probably be seen as something to be changed by the use of resources outside the classroom (Leach and Raybould, 1977).

If teachers perceive a pupil in a negative way, it is possible that they will come to accept this perception as their own (Hayes and Gunn, 1988). UK research evidence suggests that when teachers lose track of a pupil, it is relatively easy for them to fall into the trap of using terms such as 'backward reader', 'slow learner', 'discipline problem', 'emotionally disturbed', 'violent', 'aggressive', 'immature', 'anti-social' and 'lazy' as blanket descriptions of what a pupil is like and does (Leach and Raybould, 1977). When labelled in this way, a pupil's individual quality may become lost and the teacher may fail to notice other behaviour, which does not fit within the stereotype. These blanket categories have no educational relevance since they do not tell the teacher what methods or materials to use with individual pupils (Woolfolk and Nicolich, 1980).

Braun (1976) offers evidence from the US, which indicate that teachers tend to treat pupils differently depending on their own views of how well the pupils are likely to do. The differentiation of treatment can affect the actual work done by pupils and turn teachers' initial expectations into self-fulfilling

prophecies (Woolfolk and Nicolich, 1980). Self-fulfilling prophecies mean that the expectations and predictions of teachers about how well their pupils would do in the future will induce the behaviour teachers expected (Rosenthal and Jacobson, 1968). In other words, simply making the predictions caused the expected results to happen (Woolfolk and Nicolich, 1980). Some researchers in the US have studied the relationship between track placement and pupil ability characteristics, and proved that there is a logical connection between them (Rosenthal and Jacobson, 1966; Rosenbaum, 1976; Wilcox, 1982). But they provide contradictory results that remain inexplicable. Yet it remains that the sources and mechanisms, which are being developed inside the classroom, the 'self-fulfilling prophecies', become relevant as teachers and pupils in classrooms make them important in particular ways: firstly, their perspectives are shaped by those with whom they interact and secondly because their perspectives reflect broader historical and socio-cultural understandings (Page and Valli, 1990).

Rosenthal and Jacobson (1968) offered evidence from the US that pupils identified to teachers as late bloomers showed better performance than expected. The explanation given, according to Good (1982) was

"that the expectations teachers created about these pupils caused the teachers to treat them differently, so that they really did do better by the end of the year."
(p. 25)

Rosenthal and Jacobson (1966) also found that teachers' expectancy effects operated primarily at the lower grade levels. Furthermore, their research has suggested that American teachers' expectations may be based on biases and stereotypes of pupils based on ethnic group identification (Babad, 1993). Hilliard (1992) suggested that American teachers' misunderstanding of cultures other than their own might lead to an underestimation of a pupil's intellectual abilities and potential achievement. However, a weakness of this area of research is the focuses on academic outcomes to the exclusion of affective ones (Babad, 1993). Therefore, there is a need to examine teachers' attitudes to their pupils from a perspective of the interpersonal relationship

between teacher and pupil (Kaplan, 2000; Kesner, 2000; Levering, 2000).

A remaining crucial question is how a teacher's expectations and attitudes become translated into classroom behaviour. Rosenthal and Jacobson did not apply classroom observation, so it was not possible to verify the differential behaviour hypothesis. Moreover, it can be argued that teacher differential classroom behaviour may occur not only because of teachers' differential expectations for pupils with and without difficulties, but may also result from incomplete or inconsistent teacher plans. This may be a situation in which the teacher is misleading his or her pupils and they are practising the wrong operations (Doyle, 1979). Wilson and Silverman (1991) argue that teachers are divided into two categories: 'restorative' teachers, whose self-efficacy ratings tend to be low and are likely to think that pupils with difficulties are beyond their responsibility, and 'preventive' teachers who are likely to avoid asking for outside help or withdrawing until they have tried alternative ways of helping these pupils, perhaps within-class consultative support. Similarly, Good and Brophy (1980) suggest that there are teachers who, regardless of holding particular attitudes, can be categorised according to their teaching style which stays consistent over time. Good and Brophy's categories are 'the over-reacting', 'reactive' and 'proactive' teachers. The 'over-reacting' teachers exaggerate the initial problems of pupils with difficulties and thus reducing their opportunity and motivation for learning. The 'reactive' teachers give priority and opportunities to pupils without difficulties. The 'proactive' teachers structure their classrooms so that they could meet the needs of pupils with difficulties with increased time and attention without ignoring the needs of other pupils.

Nevertheless, teachers' attitudes towards pupils with difficulties is considered a significant factor that influences teachers' classroom behaviour regardless of their teaching styles. When teachers begin to believe that some of their pupils have 'difficulties' it becomes difficult for them to change their attitudes and this results in the creation of 'self fulfilling prophecies'. Teachers may have good intentions concerning the educating of pupils with difficulties, but

they are rather pessimistic over the progress of such pupils. Moreover, teachers show more prejudice and negative attitudes towards pupils with difficulties. The extent to which teachers apply their attitudes into classroom teaching needs further exploration. The next section examines the literature findings concerning teachers' classroom behaviour, association between teachers' attitudes and their classroom behaviour and factors that may influence their attitudes and classroom behaviour.

ii. Teachers' classroom behaviour, relationship with teachers' attitudes and factors that may influence teachers' attitudes and their classroom behaviour.

a. Teachers' classroom behaviour.

Research in the UK and the US undertaken in a variety of educational contexts and settings has illustrated that teachers' behaviour can increase pupils' academic and appropriate social behaviour and decrease pupils' inappropriate behaviour development (Merrett, 1981; Wheldall and Merrett, 1984, 1989; Merrett and Wheldall, 1987, 1990). Consequently, an obvious advice to teachers experiencing inappropriate behaviour from their pupils is to employ 'praise strategies' in order to encourage more appropriate classroom behaviour by the pupils (Beaman and Wheldall, 2000). It would be more useful to observe teachers' classroom behaviour and see what teachers do in classroom practice. Do teachers use more praise than reprimand? And more importantly, do teachers praise and reprimand more the pupils with or without difficulties? This section presents UK, US and international research findings concerning teachers' interactions with their pupils, first in terms of praising and reprimanding all pupils and secondly in terms of praising and reprimanding pupils with and without difficulties.

(a) Teachers' praise and reprimand.

Brophy (1981) provides research findings from the US that indicate teachers approved of pupils' behaviour more than they disapproved, and were more likely to praise 'good answers' or 'good work' than to criticise 'poor answers' or 'poor work'.

Contrary to Brophy's (1981) findings in which teachers showed more approval than disapproval towards their pupils, White (1975) found that US pupils' behaviour received more teacher disapproval than approval. Heller and White (1975) indicate that US teachers approved pupils' academic behaviour more than their social behaviour. Thomas et. al (1978) sought to compare Heller and White (1975) findings with the natural rates of approval and disapproval reported by White (1975). Despite differences in observation techniques employed (in addition to cultural differences between the samples, Heller and White conducted their research in the US and Thomas et al. undertook their research in New Zealand), the results of Thomas et. al (1978) study were broadly similar to those of White (1975): the majority of teachers disapproved of the pupils' behaviour more than they approved.

Findings from a study by Nafpaktitis et al. (1985) carried out in the US, indicate that teachers provided pupils with more appropriate approval than disapproval responses. These findings contrast with most of the findings mentioned above. Nafpaktitis' et al. contrary findings could be explained on the basis that teachers were providing more appropriate approval responses because disapproval may have a negative effect on classroom management: disapproving pupils' disruptive behaviour often reinforces this behaviour. Research findings from the UK (Rutter et al., 1979; Galton et. al., 1980; Merrett and Wheldall, 1986, 1987) are broadly in line with those of Nafpaktitis et al. The UK findings also demonstrate that while teachers praise their pupils more, they differentiate the kind of pupils' behaviour they praise more: it appeared that teachers recognised and rewarded pupils' academic behaviour more than social behaviour.

Research findings by Winter (1990) in Hong Kong indicate similar patterns to the findings mentioned above: teacher approval exceeded disapproval, with approval to academic behaviour accounting for the vast majority of approval responses. Wheldall and Beaman (1994) observed primary and secondary Australian school classrooms and they found that primary teachers gave equal number of total positive and negative responses to pupils' behaviour, whereas secondary teachers gave slightly more positive than negative responses to pupils' behaviour. In accordance with the findings mentioned above, teachers responded more to pupils' academic than social behaviour and gave more positive responses to pupils' academic than social behaviour. Charlton et al. (1995) observations' in two schools of the isolated Atlantic island of St. Helena, indicated similar teachers' behaviour patterns, identified in the research projects mentioned that teachers distributed more approval than disapproval responses to their pupils' behaviour. However, a major difference in their findings, was that in one of the two schools teacher responded more to social than academic behaviour. The authors of this study refer to a number of possible explanations as to why teachers in St. Helena are so approving - especially as regards pupils' social behaviour - ranging from geographical isolation, cultural differences in interactions, and the absence of television.

In summary, most of the research projects mentioned above (with the exception of Brophy, 1981 and Charlton et al., 1995) indicate that teachers are more likely to approve than disapprove pupils' behaviour and that their approval concentrated mostly on pupils' academic than social behaviour.

(b) Teachers' praise and reprimand of pupils with and without difficulties.

Heller and White (1975) investigated the effect of the ability level of the class on American teachers' rates of verbal approval and disapproval and found that teachers emitted more disapproval in lower ability than in higher ability classes. Russell and Lin (1977) in an Australian study found that the 'worst-behaved' group of pupils received more teacher's attention than the 'best-behaved' group in both appropriate and inappropriate behaviour. These findings contrast with Heller and White research. However, their sample was

too small to generalise (only one teacher and her class).

Good's (1980, 1982) research findings from the US indicate differential teacher treatment of pupils with and without difficulties. The research findings illustrate following: (1) teachers wait less time for pupils with difficulties to answer to questions, (2) they give pupils with difficulties the answer or call on someone else rather than trying to help them improve their responses by giving them clues or repeating and rephrasing the question, (3) they focus on pupils' with difficulties inappropriate behaviour or incorrect answers, (4) they criticise pupils with difficulties more often for failure, (5) they praise pupils with difficulties less frequently, (6) they fail to give positive feedback to the public responses of pupils with difficulties, (7) they pay less attention to pupils with difficulties or interact with them less frequently, (8) they call on pupils with difficulties less often to respond to questions, (9) they seat pupils with difficulties away from the teacher and (10) they show less friendly behaviour towards pupils with difficulties including less smiling and fewer other non-verbal indicators of support.

Similarly, Fry (1983) observed teacher-pupil interactions in Canadian classrooms in order to examine similarities and differences in teacher-pupil interactions of 'problem' and 'non-problem' pupils. He found that 'problem' pupils received less positive and more negative affection from teachers, compared to their 'non-problem' peers. Moreover, according to Fry (1983), 'problem pupils' obtained fewer 'social contacts' from their teachers, received less 'sustaining feedback' and were asked less frequently by their teachers to express their personal views and preferences on academic and class related issues.

Strain et al. (1983) investigated pupils' compliance to teachers' requests in American schools. Pupils were selected on the basis of their social adjustment to school, being 'high-rated' (making a good adjustment to school) or 'low-rated' (not making a good adjustment to school). Strain concluded that overall, teachers were providing low rates of feedback to their pupils and the majority

of 'low-rated' pupils appeared to have never received any positive feedback.

To summarise, the research findings concerning teacher-pupils interactions indicate two basic tendencies amongst teachers: first that teachers tend to focus more on pupils' academic than social interactions, and second that teachers tend to give less feedback and attention to pupils with difficulties than to pupils without difficulties. With the exception of Russell and Lin (1977), all the other research projects indicate differential teacher treatment of pupils with and without difficulties. The pupils most in need of systematic feedback and teachers' attention, that is, pupils with difficulties, were neglected.

What this chapter has examined so far has been teachers' attitudes towards pupils and their classroom behaviour. The next section examines research findings concerning the association between teachers' attitudes and their classroom behaviour.

b. Association between teachers' attitudes and their classroom behaviour.

Probably the greatest danger in educational and social research concerns the predictive utility of attitude. Sophisticated techniques of attitude measurement can be proposed but if we are unable to predict what a person will or will not do in a given situation, what use are the measurements and theories? (Eiser, 1990). Some of the most interesting studies in educational psychology are those which claim to find discrepancies between people's attitudes and their expressed behaviour. It is not unusual to observe these kinds of discrepancies, which are common in all people, including teachers. After Rosenthal and Jacobsons' (1966; 1968) studies in the US concerning teachers' expectations mentioned in the above section, related pieces of research followed that aimed at checking the extent to that teachers' attitudes are transferred into their classroom behaviour. This section will present some US and UK research findings concerning the association between teachers' attitudes and classroom behaviour.

Silberman's research (1969) examined whether teachers' attitudes towards their pupils are revealed in their classroom behaviour. Silberman explored four attitudes held by American teachers towards their pupils, namely attachment, concern, indifference and rejection. Attachment refers to teachers' affection towards their pupils, which is derived from the pleasure they bring to their work. Concern refers to teachers' attention and support toward their pupils. Indifference refers to lack of involvement with pupils because of their failure to be noticed by their teacher. Rejection refers to teachers' refusal to interact with one or more pupils (Silberman, 1969). The general findings of the research were that teachers' attitudes were generally revealed in their classroom behaviour, that different attitudes were translated into action in different ways and that pupils were aware of most behavioural expressions of their teachers' attitudes. Teacher concern and indifference were more readily expressed than rejection and attachment. Silberman explained the difference by suggesting that teachers try to prevent the expression of rejection and attachment and that feelings of indifference and concern present less of a role-conflict and therefore are easier attitudes for the teachers to express in their classroom behaviour.

Good and Brophy (1972) replicated and extended Silberman's work in the US and concluded that teachers' attitudes towards pupils correlated with differential teacher classroom behaviour. However, they reported that all four-teacher attitudes led to differential teacher classroom behaviour. Perhaps this discrepancy between the two research findings was due to the fact that Silberman's behavioural data was collected after attitude information was obtained from the teachers, so knowledge of the relevant variables might have led teachers to distort their classroom behaviour during observation periods.

In another study Ekstrom (1976) examined - among other things - US teachers' attitudes towards aspiration, satisfaction and perception of student characteristics. Aspiration includes desire for leadership, recognition and opportunities; satisfaction includes feeling happy with various school aspects, teaching as an occupation and with contacts with teachers and administration;

perception of student characteristics includes student educational background, socio-economic level and difficulty in controlling pupils. Ekstrom concluded that few of the teachers showed any consistent relationship between their attitudes and their classroom behaviour.

In a US study by Loadman and Mahan (1988) it was found that teachers' attitudes reflected their classroom behaviour. Their conclusion was based on personal observation. However, they found that the expressed attitudes of student teachers were more progressive than their accompanying classroom behaviour.

In a research about UK student teachers' attitudes and their relevant teaching practices towards the humanistic approach to teaching and learning in schools, conducted by Kyriakou and Cheng (1993), it was found that while student teachers generally held positive attitudes about the humanistic approach, yet during their teaching practices they recognised the tension between humanistic ideals and the realities of classroom life.

Koutselini and Persianis (2000) compared primary school student teachers' theories on teaching with their classroom behaviour. Their findings indicated that although student teachers' educational views shifted in their final year of training towards a child-centred and humanistic view of teaching, this was not implemented in their classroom behaviour.

Findings from Kyriakou and Cheng (1993) and Koutselini and Persianis (2000) imply that the realities of classroom life necessitate accommodation or compromise of student teachers' humanistic ideals, which create inconsistency between teachers' attitudes and their classroom behaviour.

Most of the researchers mentioned above tried to investigate the extent to which teachers' attitudes are translated into their classroom behaviour. The extent of this translation can be positive (there is agreement between teachers' attitudes and their classroom behaviour) or negative (there is

disagreement between teachers' attitudes and their classroom behaviour). However, a rather confused picture emerges. Sometimes the attitudes prove to be good predictors of the specific kinds of behaviour under investigation, but at other times they show no indication at all. Silberman (1969), Good and Brophy (1972) and Loadman and Mahan (1988) provide US findings that indicate high to moderate association between teachers' attitudes and their classroom behaviour. Ekstrom (1976) and Kyriakou and Cheng (1993) and Koutselini and Persianis (2000) provide evidence for the opposite.

Two further points can be made from the exploration of the association between teachers' attitudes and classroom behaviour. The first point is that it makes a significant difference whether teachers are asked to express their attitudes first and then they are observed in the classroom, or vice-versa. As differences in research findings between Silberman (1969) and Good and Brophy (1972) suggest, teachers may distort their classroom behaviour if they are asked to express their attitudes before the observation. This suggests that observing teachers before asking them to express their attitudes has the advantage of making sure that they act as natural in the classroom settings. On the other hand, asking teachers to express their attitudes before observing them, may enable the researcher to 'categorise' teachers according to their expressed attitudes and then investigate the extent to which teachers apply their attitudes in the classroom settings. The second point, as Loadman and Mahan (1988), Kyriakou and Cheng (1993) and Koutselini and Persianis (2000) suggest, is that it is likely that student teachers have an ideal and humanistic view concerning teaching during their training, but when they start teaching in schools they realise the tensions between humanistic ideals and the realities of classroom life.

Significant research findings that contribute toward the understanding of the relationship between teachers' attitudes and classroom behaviour can be also found in the field of reading and literacy (Fang, 1996). Mangano and Allen (1986) found that American teachers approach language instruction differently depending on their attitudes towards writing. Instructional behaviour were

consistent with teachers' attitudes, but the teacher-pupil interactions differed according to teachers' attitudes about writing instruction. Richardson et al. (1991) found that American teachers' attitudes relate to their classroom behaviour. Specifically, they reported that teachers who believed that the sub skills of reading must be learned before the meaning of text, used a skills and word approach. On the other hand, those that believed that learning to read is accomplished by reading, they used the literacy structuralist approach. A UK based study by Wilson et al. (1991) reported that the relationship between teachers' attitudes and their instructional behaviour were inconsistent. Hoffman and Kugle (1992) found no significant relationship between teachers' attitudes towards reading and their verbal feedback during reading instruction. Johnson's study (1992) indicated that the majority of English as a Second Language (ESL) teachers possessed clearly defined attitudes, which consistently reflected one particular methodological approach. Furthermore, the study showed that ESL teachers who possess clearly defined attitudes provide literacy instruction, that was consistent with their theoretical orientation and that teachers with different dominant theoretical orientations provide different literacy for non-native English speakers. Davis et al. (1993) and Konopak et al. (1994) examined teachers' attitudes about reading and instructional decision-making and discovered that, although teachers' reader-based attitudes were largely consistent with their choices of hypothetical lesson plans, they found inconsistency in the relationship between teachers' attitudes and classroom behaviour.

In this brief exploration of the relationship of teachers' attitudes and their classroom behaviour in the field of reading and literacy, Mangano and Allen (1986), Richardson et al. (1991) and Johnson (1992) have reported consistency between teachers' attitudes and their classroom behaviour, while Wilson et al. (1991), Hoffman and Kugle (1992), Davis et al. (1993) and Konopak et al. (1994) have reported inconsistency. It should be mentioned that the first three studies focused on hypothetical written tasks and did not include classroom observations of the teachers in action, whereas the second group of studies have included observation. The difference in their findings

can be explained on the non-use or use of classroom observation. In the first group of studies research findings were based on teachers' written responses, which reflect what should be done. In the second group of studies research findings were based on observations, which show what is actually happening in class. In conclusion, the use of observation can determine the findings of a research study.

c. Factors that may influence teachers' attitudes and their classroom behaviour towards pupils with difficulties.

In the past, researchers tended to generalise teachers' attitudes to pupils with difficulties, but recently the specific factors that influence teachers' attitudes are being considered (Chazan, 1994). For example, some US studies concerned with identifying variables affecting teachers' attitudes and their classroom behaviour have identified three types of them: (1). static characteristics, such as age, education role, level of education and teaching experience, (2). contact and exposure to the pupil with difficulties and (3). training in concepts and skills related to teaching in special needs' schools (Larrivee and Cook, 1979; Larrivee, 1981). Researchers in the US and elsewhere have focused on several teacher characteristics including teachers' race, nationality, sex, experience level, and formal educational preparation. All these characteristics are considered to play an important role in how teachers perceive their pupils and in determining the needs of both pupils and teachers (Kelly et al. 1977).

A more systematic analysis of the factors follows:

(a) Mainstream versus special schoolteachers.

Comparisons of mainstream and special teachers' attitudes towards pupils with difficulties have not revealed a consistent picture (Chazan, 1994). US findings from a study by Kauffman et al. (1989) indicated that, regardless of extreme individual differences within both mainstream and special education teachers were found, no significant difference between the two groups could

be noted. US research conducted by Safran and Safran (1987), revealed that the judgements of mainstream teachers tend to be more severe than of those of special education teachers. There is evidence from the US that suggests that positive attitudes towards mainstreaming increase as the implied personal responsibilities decrease (Horne, 1983). It appears that mainstream classroom teachers typically exhibit pessimistic attitudes in comparison with the more optimistic attitudes held by school administrators (Garvar-Pinhas and Schmelkin, 1989). Martlew and Hodson (1991) provided evidence from the UK that indicates that teachers in mainstream schools were more positive and teachers in special schools were more negative towards integration and inclusion.

UK and US educators who are closely involved in mainstream classrooms have less positive views about integration and inclusion compared to those who are more distant, such as head teachers (Norwich, 1994, 1). This difference might be due to the fact that it is class teachers who actually put into practice the idea of integration and inclusion, while administrators and senior teachers give the plan for the pro-integration and inclusion processes. It is, therefore, expected that teachers' views about integration and inclusion relate to their professional position in the educational system (Norwich, 1994, 1).

(b) National context.

Teachers' attitudes to pupils with difficulties may reflect the general attitudes towards these pupils within the country in which they work (Chazan, 1994). In the US, teachers' attitudes are clearly a major factor in the placement, management and treatment of pupils with difficulties (Ritter, 1989). In Canada, the success of mainstreaming is heavily dependent on teachers' attitudes towards pupils with difficulties (Stephens et al. 1982). In the Netherlands, mainstream teachers carry virtually no responsibility for special needs and can exert pressure to transfer 'troublesome' pupils to segregated education, which is held in high regard (Rodbard, 1990). By contrast, in Italy it is generally

accepted that virtually all pupils should be educated in mainstream schools (Piji and Meijer, 1991). In Cyprus, teachers' recommendations for a better treatment of pupils with difficulties are based on three conditions: (1) better information for parents, (2) use of standardised tests for identifying pupils with difficulties, and (3), integration and inclusion of pupils with difficulties in ordinary schools on the condition that a special teacher will be available for help whenever it is needed and availability of special school teachers in all the schools (Archontakis and Kyriakou, 1994). Leyser et al. (1994) conducted a cross-cultural study on teachers' attitudes towards mainstreaming that involved teachers from the US, Germany, Israel, Ghana, Taiwan and the Philippines. The findings revealed that US teachers expressed the most supportive views, followed by the Germans, while the rest of the teachers expressed neutral attitudes towards mainstreaming. Walker and Lamon (1987) found that Southern Australian teachers are more accepting of pupils' maladaptive behaviour than US teachers are. Similarly, Norwich (1994, 1), offered findings that argue that UK teachers are more positive towards integration of pupils with difficulties than their US colleagues. Finally, Langfeldt (1992) found that German teachers could easier accept pupil's non-conformity than their South Korean colleagues.

The national context may significantly influence teachers' attitudes towards pupils with difficulties, especially with regards to their integration and inclusion to or segregation from the mainstream classroom.

(c) Advantaged versus less advantaged school regions.

Pupils are very adaptable and resilient, and by no means do pupils from socially disadvantaged backgrounds (poor conditions at home, an adverse school situation and very limited resources in the neighbourhood) show behaviour and learning problems (Chazan, 1978). However, there is a considerable difference in the treatment of pupils with difficulties between schools in advantaged and less advantaged school regions in the UK (Rutter et al. 1975). Working in an inner city school, affected by local and economic

social problems, increases the stress felt by UK teachers and inevitably influences their attitudes to behaviour and learning problems (Cox and Jones, 1983). However, in a US research Knoff (1984) found no statistical association between teachers' attitudes and geographical region of the teachers.

However, the school region can be a significant factor for influencing teachers' attitudes towards pupils with difficulties.

(d) Contextual factors.

Contextual factors refer to the complexities of classroom life, which can affect teachers' classroom behaviour (Duffy, 1982; Duffy and Ball, 1986; Paris et al., 1991; Roehler and Duffy, 1991; Smith and Laslett, 1993). Duffy and Anderson (1984) argued that, although teachers are able to articulate their attitudes outside the classroom, their actual instructional behaviours were governed by the nature of instruction and classroom life. Davis et al., (1993) argued that teachers' agendas, school climate and resources shape teachers' understanding of the instructional task that they face every day. Contextual factors affect the ability of teachers to cope with pupils with difficulties include the size of the class and the use of available space (Thomas, 1985; McNamara et al. 1986; Wheldall and Glynn, 1989). Classroom complexity demands full teacher attention. For instance, managing many pupils in a small place puts a premium on routine and predictability (Feiman-Nemser and Floden, 1986). Most innovations represent some threat to a rather precarious classroom order.

Contextual factors include classroom management techniques, the extent to which teachers can be effective in their teaching and effective classroom management is an important condition for teachers having positive views about their pupils.

(e) Teachers' ethnicity.

White teachers tend to perceive more black pupils as having behaviour problems than black teachers do (Chazan, 1994). In the UK, Wright (1988) found that teachers had negative and stereotyped views of African-Caribbean pupils, leading them to restrict these pupils' academic opportunities by assigning them to the lower streams. In the US, research has shown that white teachers expect white pupils to be more successful academically than African-American pupils (Guttman and Bar-Tal, 1982). However, Pigott and Cowen (2000) provide evidence from the US that suggest that teachers' ethnicity is not a determinant factor for shaping their attitudes towards their pupils: African-American pupils were judged by both white and non-white teachers as having more difficulties than white pupils.

Teachers' ethnicity may be an influential factor for shaping teachers' attitudes towards their pupils, especially when it comes to multicultural societies like the UK and the US.

(f) Teachers' gender.

Research findings from studies conducted in the US, Germany and Korea that were concerned with ascertaining the effects of the gender of teachers on their attitudes to pupils' behaviour were inconsistent (Kelly et al. 1977; Langfeldt, 1992). However, male teachers rated more severely than their female colleagues cases of disobedience, cruelty, bullying, stealing, and shyness (Chazan, 1994). Furthermore, Good et al., (1973) have found that male teachers at the secondary level tend to have a more authoritarian and task-oriented teaching style in the classroom, while female teachers tend to have a more supportive, expressive and less task-oriented manner. In the US, Anderson and Anderson (1995) found that females entering the teaching profession tended to hold more positive attitudes towards pupils than their male colleagues did. In the UK, Kelly et al. (1985), found that women teachers were more emphatic about gender equality than men teachers were. Studies

carried out in Malta (Borg and Falzon, 1989 and 1990) indicated that male teachers rated more severely than their female colleagues cases of disobedience, bullying, stealing and shyness. Ritter (1989) and Jones and Wheatley (1990) present research findings, which show a trend of female teachers to be more sensitive to pupils' behaviour problems.

There is some research evidence that indicates that female teachers are more positive towards pupils with difficulties than their male colleagues are. However, there is inconsistency in research findings over the significance of teachers' gender on teachers' attitudes

(g) Teachers' age and experience.

Kelly et al. (1977) found that the years of experience of American teachers influenced their attitudes towards pupils with difficulties. In a review of US studies carried out in the 1970s and early 1980s, Jamieson (1984) concluded that, amongst other factors, the teachers' age was not directly related to their attitudes. An explanation could be that age does not necessarily lead to a more tolerant attitude towards pupils with difficulties: for example, younger teachers may feel more sympathetic towards their pupils' problems and negative attitudes may harden as teachers grow older (Chazan, 1994). However, in a US study carried out by Anderson and Anderson (1995) concerning pre-service teachers' attitudes towards pupils, it was found that age, amongst other factors, was a statistically significant variable, with older teachers holding more positive attitudes towards pupils than younger ones. Anderson and Anderson explained this finding by stressing the fact that many older pre-service teachers are parents and this experience has helped them feel more comfortable with pupils, especially pupils with difficulties. It seems that teachers who have taught pupils with difficulties when they started their career perceived greater benefits from mainstreaming than with no experience (Marston and Leslie, 1983; Moore and Fine, 1978). A UK study by Ball (1987) suggests that younger teachers are more reform-minded in relation to gender. Among the various reasons why, one is greater exposure of young teachers to

the women's movement and feminist ideas, whereas older teachers are more likely to be in promoted positions and have a greater stake in the status quo (Riddell, 1988). It may also be that the conditions of teaching progressively drain teachers of energy and enthusiasm as they carry on over the years (Feiman-Nesmer and Floden, 1986).

Research findings concerning the influence of teachers' age and experience on teachers' attitudes towards pupils are inconsistent. Some research findings indicate that younger teachers have more positive attitudes towards pupils with difficulties than older teachers. Other research findings indicate that more experienced teachers are more positive towards pupils with difficulties than less experienced teachers.

In summary, the research findings on the influence of factors that may affect teachers' attitudes and their classroom behaviour, indicate that mainstream versus special school teachers, the national context, the school region, within classroom factors and teachers' ethnicity are the most significant. Teachers' age, experience and gender offer inconclusive results. It should be noted, that there are differences between research findings concerning the significance of each factor, mentioned above, on shaping teachers' attitudes.

In the above section, three aspects were critically examined: (1) teachers' classroom behaviour, (2) teachers' attitudes in relation to their classroom behaviour, and (3) factors that may influence teachers' attitudes and their classroom behaviour. Teachers' attitudes do not necessarily translate into their classroom behaviour. Furthermore, teachers' classroom behaviour indicate that teachers favour average and 'bright' pupils than pupils with difficulties, despite theoretical intentions to the contrary. Among the factors that influence teachers' attitudes and their classroom behaviour, area and type of school (developed and less developed area, mainstream and special schoolteachers respectively) as well as national context should be highlighted. The last section of the chapter will examine teachers' roles and options in class that influence teachers' attitudes and their classroom behaviour.

iii. Teachers' role and options.

a. Teachers' role.

There are similarities between teachers and doctors concerning the nature of their professions. When doctors graduate, they have to take the Hippocratic oath in which the following extract is included:

"I will apply dietetic measures for the benefit of the sick according to my ability and judgement; I will keep them from harm and injustice."

(Hippocrates, 12, 13)

Doctors undertake, on the basis of their oath, to help all those people who need their services according to their needs, without any kind of discrimination. In a way, that is what teachers do too, or should do, when dealing with pupils. The teaching profession is as demanding, because it presupposes a triple role for the teacher. The first being the protector of pupils' legally enforced rights. The second being the 'practitioner' for pupils with difficulties. And the third being the instructor and supporter of his or her pupils to become well equipped and strong to confront life.

Teachers' role is complicated within mainstream classrooms, where pupils with difficulties consume more of their teachers' time and attention than those pupils regarded without difficulties. Disproportionate allocations of teachers time can be problematic, because all teachers could justifiably maintain that 'all pupils have special needs' (Dessent, 1987). The implication being that all pupils have an equal right to the teacher's time and expertise and that no pupil has a right to a disproportionate amount.

All pupils have the right to be treated as unique-special cases and thus be taught in settings that are least disruptive to them. The opportunities for normal learning experiences are best provided in educational facilities integrated within ordinary schools (Leach and Raybould, 1977). However, a large school cannot always follow the appropriate procedure because its

buildings, staffing and administration are provided on the assumption that the pupils' requirements as individuals vary within a comparatively narrow range. As Kershaw (1973) points out,

"By a compromise between the adaptability of the pupils and the adaptability of the school system the needs of most will be met without either pupils or school suffering unacceptable strain."

(p. 1)

b. Teachers' options.

Can teachers apply the educational equivalent Hippocratic oath in the modern compulsory mainstream classroom? It appears that there are some factors that limit teachers' ability to set in practice the educational equivalent Hippocratic Oath. This section critically reviews these factors, which relate to teachers' options in class, that influence their attitudes and classroom behaviour and are relevant to educational equality. These options include three dimensions. The first dimension is the school aims - do teachers give more priority to pupils' academic achievement or social development and how does this affect educational equality?. Secondly, the use of grouping and integration and inclusion in schools - do teachers favour ability grouping or integration and inclusion of pupils with difficulties in the ordinary classroom and how does this affect educational equality?. Thirdly, the use of competition and marking in class - what are the effects of competition and marking on pupils' development and how do they relate to educational equality?

(a) School aims.

Dewey's (1895; 1972) theory of education suggests that the proper concern of a school is not education, in a narrow sense and the preparation for later life, but the present lives of the pupils, as stated,

"The school is primarily a social institution. Education being a social process, the school is simply that form of community life in which all these agencies are

concentrated that will be most effective in bringing the child in the inherited resources of the race, and to use his [her] own powers for social ends.”

“I believe that education (...) is a process of living and not a preparation for future living.”

(pp. 86-87), (1972)

It is understood that the aim of the school, in the long run, should not be solely to educate pupils in the ‘ordinary’ sense of the term, but to teach them to accept and adapt to the total circumstances of living and make them feel happy within school (Dennison, 1971; Kershaw, 1973; Elliot, 1982). With this in mind, teachers should try to improve the lives of their pupils by satisfying their need for love, security, and acceptance, which gives them a sense of being cherished whatever they may like and do. Pupils may feel secure and wanted if they are able to establish a satisfactory relationship with their teachers and feel able to win their approval (Pringle, 1965). After all, since only a minority of pupils continue their education to higher education, there is no point in trying to force primary school pupils to achieve academic goals that are above their capacities.

Research findings from UK classrooms (Merrett and Wheldall, 1987; Galton et. al, 1980) demonstrate that teachers tend to focus on pupils’ academic behaviour and achievement than on their social responses and development. By focusing on pupils’ academic achievement, teachers favour pupils without difficulties, since these pupils are more likely to perform better in academic subjects. Consequently, pupils with difficulties are neglected and educational equality is distorted. The positive attitudes towards academic achievement may indicate a liberal egalitarian approach to educational equality.

(b) Use of integration, inclusion and grouping in schools.

Teachers may endorse general statements in favour of including and integrating pupils, but it is another issue how willing they are to make specific adaptations for these pupils (Norwich, 1994, 1). This implies that the problem

is on whether teachers are willing to make any changes in their daily teaching schedule in order to include pupils with difficulties, or not.

UK and international research findings (Ball, 1981, Schwartz, 1981, Burgess, 1984, 1985; Gamoran and Berends, 1987) indicate that ability grouping can lead to anti-school attitudes and alienation from school. 'High ability' pupils tend to accept the school's demands, whereas 'low ability' pupils resist the school's rules and may even attempt to subvert them. Also pupils tend to be labelled and stereotyped by teachers according to the group they are in. For example, Schwartz (1981), reports UK teachers' use of stereotyped descriptions such as 'thick', 'bright', 'slow', 'difficult' etc. When teachers favour streaming, the pupils of lower ability tended to be bullied and friendless, reflecting the impact of teachers' attitudes towards lower ability pupils. Evidence from the UK also suggests that when teaching is done with no grouping, by placing all pupils to mixed sitting regardless of their abilities, has had a positive effect on classroom behaviour and student attendance. There is evidence to support the role of mixed seating arrangements in developing co-operative and cohesive classroom environments (Wheldall et al. 1981).

The more positive stance to integration and inclusion is associated with egalitarian and socially progressive views, and less positive with less egalitarian and socially conservative views (Norwich, 1994, 1). Approaches to integration and inclusion, such as ability grouping for pupils, that leads to withdrawal of pupils with difficulties, tends to be associated with pragmatic and less egalitarian ideology, whereas mixed ability groups and support for pupils with difficulties tends to be associated with an egalitarian ideology (Ireson et al. 1989; Ireson and Hallam, 1999).

(c) Use of competition and marking in mainstream classrooms.

In a competitive school situation, like in the UK and US, the goals for each pupil are so explicit that there is a negative inter-dependence between pupils (Hopper, 1987). Pupils can only achieve their goals if the fellow pupils fail to

achieve their respective goals. In other words, pupils will seek an outcome that is beneficial to them, but detrimental to the other pupils with whom they are competitively inter-related. In a competitive classroom, the rules of the learning game are based on an arrangement, which amounts to a zero-sum scoring system (Alschuler, 1973). When one pupil wins, another pupil must lose. The formal properties of the zero-sum scoring system are easily grasped, but what is exceedingly difficult to appreciate is the depth of turmoil and antagonism that can result (Rogers, 1990). It appears that aggression and resentment toward one another is an inevitable result of the kind of competitive dynamic set in motion (Covington, 1992).

What is the source of the competitive learning that creates these conflicts? The source seems to be the scarcity of rewards such as approval, recognition and personal satisfaction, caused by the competitive climates, where only those pupils who perform best are rewarded (Covington, 1992). In competitive situations there is usually a predetermined limit on the total number or size of rewards. In other words, rewards are only accessible to a minority of pupils (Hopper, 1987). Once pupils realise that the prevailing standards of excellence are set by the performance of other pupils, they may lose control over their own learning and be forced to keep pace with ever accelerating demands that grow increasingly beyond their reach, especially for the ones with difficulties (Covington, 1992; Covington and Omelich, 1985).

Competition also threatens intrinsic task involvement. Whenever pupils are preoccupied with trying to make others fail for fear that they themselves will fail, the joy of learning fades (Covington, 1992). Evidence from the US suggests that if pupils are motivated solely by extrinsic rewards, they are more likely to adopt goals and strategies that concentrate on meeting minimum requirements that entitle them to acceptable reward levels (Good and Brophy, 1997). Another problem is the kinds of rewards teachers often use and their role in competitive dynamics. First, competitive rewards tend to be tangible - gold stars and strikers - and extraneous, in that they are unrelated to the process of learning itself (Covington, 1992). Second, many teachers see

competitive rewards as providing the motivation for achievement (Covington, 1985). Yet this is a simplistic argument. Other educators suggested a different approach. In the US, Bruner has suggested that one of the most important ways to help pupils think and learn is to free them from the control of rewards and punishments (Bruner, 1962). According to Bruner, rewards and punishments establish patterns of doing in a way that is believed to yield rewards and forestall punishments. Bruner argues that when pupils learn intrinsically, they tend to interpret their successes and failures as information rather than as rewards and punishments. Neill, founder of the well-known Summerhill school in the UK, shares similar ideas as Bruner. According to Neill, effective learning occurs when the primary reward is one's intrinsic satisfaction with one's accomplishments (Neill, 1960).

Furthermore, competition reduces intrinsic motivation. It may motivate pupils externally, but it is only competition with oneself - a desire to increase one's own competence - that motivates pupils intrinsically (Harackiewicz and Elliot, 1993). In the US, Deci and Ryan (1982) found that instructing subjects to try to out do someone else reduced their intrinsic motivation for that activity. In a US study by Dweck and Leggett (1988) a distinction was made between two classes of goals: performance goals (pupils are concerned with gaining favourable judgements for their competence) and learning goals (pupils are concerned with increasing their competence). According to Dweck and Leggett, performance goals are linked to extrinsic motivation and learning goals are linked to intrinsic motivation. They found that pupils with difficulties tend to be involved with performance goals and pupils without difficulties with learning goals. The reason for this can be found in how pupils describe themselves. Pupils without difficulties perceive their ability and self-esteem to be high and select learning goals that involve challenging performance tasks that would allow them to obtain judgements of competence. Pupils with difficulties perceive their ability and their self-esteem to be low and select performance goals that involve easy tasks that would allow them to avoid judgements of incompetence (Ames, 1984; Nicholls, 1984; Dweck and Leggett, 1988).

With regards to the use of marking as a means of evaluation in schools, there has been a wide debate in the UK and the US about the advantages and disadvantages of various grading systems and about the philosophy of grades in general (Yelon and Weinstein, 1977; Woolfolk and Nicolich, 1980; Deci and Ryan, 1985; Covington, 1992, 1998). Grades are a specific kind of extrinsic motivation related to competitive teaching methods. Researchers in the UK (Deci and Ryan, 1985) have found that grades had a negative effect on pupils' conceptual learning. Moreover, they found that pupils who were oriented primarily toward grades (extrinsic motivation) rather than learning (intrinsic motivation) were more anxious and less confident. It appears, then, that although grades motivate pupils to prepare for tests, they have unintended negative consequences for the pupil's attitudes, intrinsic motivation and self-esteem (Covington, 1992). Another important point is that grades do not have an absolute meaning. Grades do not have the same meaning from school to school or from teacher to teacher, so they are unfair. US research evidence (Deci and Ryan, 1985; Covington, 1992) suggests that the subjectivity with which grades are assigned includes some bias - probably unconscious, but nonetheless bias - on the part of the teachers. Girls appear to receive better grades than boys do. Middle class pupils appear to receive better grades than working class pupils do. Attractive pupils who sit in front and participate in class receive better grades than non-participants who sit in the back of the classroom do.

Furthermore, grades have only a limited value as motivators. They are effective motivators only with those pupils who receive good grades. For the pupil who does not do well, grades may be only a source of anxiety and frustration and result in a dislike for school and learning (Yelon and Weinstein, 1977; Covington, 1998). The competition generated by the scramble for grades frequently leads to increased cheating, which are invalid. Also, grades have limited value as predictors of success outside of school. Grades have been shown to accurately predict future grades, but they do not relate to future success, or lack of it beyond schooling (Yelon and Weinstein, 1977). Grades are apt to motivate marginal pupils, but for the wrong reasons, by

arousing threat, and only temporarily; at the same time they foreclose the most able pupils from using their capacities to the fullest (Covington, 1992; 1998).

From what mentioned above, the use of competition and marking in the compulsory mainstream classroom, the kind of competitive learning expressed through unequal distributed rewards and grades tends to be unsuccessful. However, competitive goal structures can provide some motivating reinforcement, but the only pupils who are positively affected are those who believe that they have a good chance of succeeding, that is pupils without difficulties. For pupils with difficulties, competitions are threatening and can lead to failure from the outset. These pupils tend to respond by withdrawing, either physically or psychologically. Of the pupils for whom competition provides a motivating force, only a limited number of pupils can succeed, due to finite rewards. The majority of the pupils will fail either before the beginning or at the completion of the task. The reason being that competition makes sense only when applied in classrooms with pupils of the same abilities. Yet, this of course is not a reality. In compulsory education all pupils - regardless of socio-economic status and abilities - are expected to participate in the same classroom and access the same curricula. According to Entwistle (1978),

“schools should be middle-class and multi-class institutions, comprehensive in the sense of taking account of the varied vocational, economic and cultural orientations, whilst recognising that such differences should be harmonised within a cultural mosaic where the common experience both sustains and is enriched by the parts.”

(p. 39)

It is suggested that teachers' attitudes towards competition and marking in class may reflect their attitudes towards educational equality. Positive attitudes towards competition and use of marking in the compulsory education may indicate preference to the liberal egalitarian model of educational equality whereas negative attitudes towards competition and use of marking may indicate preference to the strict egalitarian and fair inegalitarian models of educational equality.

Conclusions

Having analysed and defined educational equality in the previous chapter, this chapter placed the research in the school context and focused on teachers. UK, US and international research findings concerning teachers' attitudes towards pupils with difficulties, teachers' classroom behaviour, associations between teachers' attitudes and their classroom behaviour, factors that influence teachers' attitudes and their classroom behaviour and teachers' options that affect teachers' attitudes and their classroom behaviour were presented.

This research provides evidence, which indicate that Greek mainstream teachers identify pupils that have difficulties at a ratio of one out of five, which corresponds with UK findings of Croll and Moses (1985) and Croll (1996). Research findings concerning teachers' attitudes towards pupils with difficulties suggest that teachers may be generally positive toward such pupils, but they are pessimistic over their long-term progress in school. Teachers may create 'self fulfilling' prophecies' for pupils with difficulties, which result in their failure in school. In classroom practice teachers tend to focus more on pupils without difficulties and furthermore they concentrate more on pupils' academic responses, which indirectly favour pupils without difficulties. The association between teachers' attitudes and their classroom behaviour tends to be inconclusive, resulting to either positive or negative associations, depending on the kind of the research.

Among factors that significantly influence teachers' attitudes and their classroom behaviour, are mainstream versus special schoolteachers, the type of school region and the national context. Mainstream school teachers based in less advantaged regions have more positive attitudes towards pupils with difficulties than teachers who teach in special schools or in mainstream schools based in advantaged regions. Finally, teachers' role, as derived from the educational equivalent Hippocratic oath, includes options that may influence teachers' attitudes and their classroom behaviour. The identified

options include the use of school aims, use of integration and inclusion or ability grouping, and use of competition and marking in schools. Teachers who focus more on pupils' academic achievement than their social development tend to indirectly favour pupils without difficulties. Similarly, teachers who agree with the use of ability grouping and exclusion of pupils with difficulties from mainstream classrooms may be less positive towards pupils with difficulties. UK, US and international research findings about teachers and pupils interactions indicate that teachers focus more on pupils' academic than social responses and when teachers apply ability grouping in schools it may have negative consequences on pupils' with difficulties progress. Furthermore, teachers who agree with the use of competition and marking in the mainstream compulsory school classroom tend to be less positive towards pupils with difficulties.

As mentioned in Chapter I, teachers' attitudes towards educational equality may be significantly affected by the presence of pupils with difficulties in mainstream compulsory school classrooms. The summary of the research studies mentioned above indicates that teachers may favour the fair inequalitarian educational equality model in theory, but they have some unconscious biases towards pupils with difficulties, creating the so-called 'self fulfilling prophecies'. Teachers' classroom behaviour tends to reflect the liberal egalitarian model of educational equality, since teachers tend to focus more on pupils without difficulties. Therefore, the association between teachers' attitudes towards pupils with difficulties and their classroom behaviour tends to be problematic. The above findings are significantly related to the research topic, which is Greek teachers' attitudes towards educational equality and the associations with their classroom behaviour.

The next Chapter places the research a Greek context. As mentioned above, national context is a significant factor, that influences teachers' attitudes and their classroom behaviour. The following Chapter seeks to answer the following questions: how are the different models of educational equality (mentioned in Chapter I), transferred into the Greek educational system? And

how the research findings (mentioned in this Chapter) relate to Greek teachers' attitudes and their classroom behaviour?

CHAPTER III

The Greek educational context

Introduction

This chapter contextualises thesis into a Greek situation. As mentioned in Chapter II, section ii, c (pp. 79-80), the national context may influence teachers' attitudes ¹ towards educational equality. Therefore, in accordance with this finding, the aim of this chapter is to focus on the Greek educational context and examine three particular aspects. The first aspect is the theoretical dimensions of the institutional framework of Greek education, including the philosophy of educational aims and values and the basic measures of the system. This includes an examination of the extent to which the Greek educational framework is consistent with the models of educational equality, as analysed in Chapter I. The second aspect is a critical review of relevant literature on research concerning teachers' attitudes towards school education carried out in Greece. This includes an examination of the extent to which Greek research is relevant to the current educational developments and debates. The third aspect is an exploration of the current situation in Greek primary and secondary compulsory mainstream schools, based on the researcher's observations in classrooms. These three aspects are critically analysed individually and then completed, by firstly assessing internal consistency of each aspects and then determining how these aspects are inter-connected.

¹ As mentioned in section i. a. (a) of Chapter II (p. 59), this research defines the term 'attitude' as teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option.

i. School education in Greece

Greek education has followed a course parallel that others in more industrialised European countries (Tsoukalas, 1977; Tsolakis, 1981). In the post-war period, with the exception of the junta period (1967-1974), Greece underwent through its most stable parliamentary democracy, voted for a new constitution in 1975, signed the accession to the Common European Market in 1979 and saw some significant statutory reform measures, particularly the updating of the educational system (Evangelopoulous, 1987). It is important to note that there has been a wide-spread demand by Greek society for education, a demand that has been adopted by all political parties, to which the State respond yet not always in the most effective way (Dimaras, 1973; 1974; 1978). The various measures undertaken by successive governments have both common characteristics and divergences (Persianis, 1998).

a. Greek school education in the post war period.

The basic statutes of the post-war period on education are the Legislative Decree 4379/1964 (Greek Ministry of Education, 1964), the Greek Constitution (Fifth Revisionary Parliament of Greeks, The Greek Constitution, Newspaper of the Government, A, 111/9.6.1975), the Law 309/1976 (Greek Ministry of Education, 1976), the Law 1566/1985 (Greek Ministry of Education, 1985), and as well as some other relative provisions, plus the separate statutes for special, technical-vocational, and higher education. Three statutes for general education followed and expanded the basic principles and directions of the educational reforms of 1917 and 1929. Both the 1917 and 1929 educational reforms were guided by 'Ekdedefitikos Demotikismos', a renovating linguo-educational movement that sought to end a chronic intellectual and educational debate about the language problem of Greece (Charis, 1976; Papanoutsos, 1978); and have, consequently, a distinctly progressive orientation, which is increasingly progressive from statute to statute, at a minimum level (Koulouri, 2001) ². These statutes were propounded and

² To Vima, 14/11/01. (in Greek)

passed by three successive and politically different governments - Central Union (EK), New Democracy (ND) and Pan-Hellenic Socialist Movement (PASOK) - one of which, ND, held a politically conservative ideology (Mpouzakis, 1986; Mathaiou, 1989).

The predominant features of the Greek educational policy during the post-war period are as follows:

(a) Education for all pupils without discrimination. The Law 4379/1964 (Greek Ministry of Education, 1964) legislated the extension of compulsory education from six to nine years, a provision that was included in the Greek Constitution of 1975 (Fifth Revisionary Parliament of the Greeks, 1975) and was implemented from 1976 onwards. Pre-primary education was also gradually extended, not having become compulsory yet.

(b) Education became more accessible for all pupils irrespective of their socio-economic status and geographic region. To achieve this end a series of provisions were enacted, such as: (1) free state education; gradual reduction of the number of pupils per class; (2) establishment of new secondary schools all over the country; (3) gradual incorporation of one-teacher elementary schools into larger units; (4) transportation to school, at state expense, of pupils residing a long distance; and (5) abolition of the examinations from grade to grade within compulsory education (Law 309/1976, Greek Ministry of Education, 1976; Law 1566/1985, Greek Ministry of Education, 1985).

(c) A satisfactory and efficient school education. Among some of the provisions made are: (1) the establishment of a high-level State Institute ('Pedagogic Institute', then 'KEME', and again 'Pedagogic Institute') to conduct research, advise the Ministry of Education, prepare the school curricula, provide further training for teachers and supervise the writing and publication of textbooks - and more recently the establishment of an extra 'Centre of Educational Research' in the service of the Ministry of Education; (2) abolition of the primary and pre-primary Teacher Training Colleges and their

replacement by Pedagogic Departments at the Universities; (3) development of in-service teacher training programs; (4) replacement of school inspectors by school advisers, whose task is to help teachers in their teaching and other duties, arrange for further training and encourage educational research; (5) establishment of the common Greek language of today ('demotiki') as the language of education and the State; (6) revised or new curricula and textbooks; (7) steps towards an internal unification of curricula and the treatment of pupils of the compulsory school education; and (8) vocational guidance in the upper stage of compulsory education. (Oliver, 1982; Law 1304/1982, Greek Ministry of Education, 1982, 2; Decree 214/1984, Greek Ministry of Education, 1984; Greek Ministry of Education, 1987).

(d) Reorganisation and furtherance of special education for pupils who are physically, mentally or psychologically challenged in either separate schools or on a part-time basis in classes or groups within ordinary schools (Law 1143/1981, Greek Ministry of Education, 1981, 3; Decree 603/1982, Greek Ministry of Education, 1982, 1; Law 1566/1985, Chapter 10, Greek Ministry of Education, 1985; Decree 301/1996, Greek Ministry of Education, 1996). There has been profuse legislation but with little action undertaken (Hatzichristou and Hopf, 1993).

(e) Previously neglected technical-vocational education has been transferred to schools attended after the completion of the nine-year compulsory education, where the curricula have retained their openly academic character (Law 1566/1985, Greek Ministry of Education, 1985). For this reason as well as the lack of sufficient material and technological substructure, technical-vocational education, though part of general education, has continued to be in disrepute as the 'poor relative' of education.

b. Current Greek education.

The current Greek statute concerning school education is the Law 1566/1985 (Greek Ministry of Education, 1985) and a series of decrees and government enactments based on it. School education, according to article 1, aims at assisting pupils, among various things, (1) to become free, responsible, and democratic citizens; (2) to acquire a social identity and an awareness of the social value and equal status of both intellectual and manual work; (3) to develop their creative and critical abilities and their appreciation of collective effort and co-operation, so that they can undertake initiatives and contribute through responsible participation to the social welfare and the development of their own country. Among the conditions towards this end are respect of each pupil's personality, and the fostering of the necessary pedagogic climate that favours the development of friendly interpersonal relationships among pupils.

Under the terms of the Law 1566/1985 (Greek Ministry of Education, 1985), and other enactments in force to date, the Greek educational system is presented as follows:

(a) The Greek educational system is structured into three levels: primary (which includes two-year pre-primary and six-year primary schools), secondary (subdivided into a lower three-year gymnasium and an upper three-year lyceum), and tertiary (consisting of Universities and other Higher and Intermediate Institutions). Education at all levels is provided predominantly by State institutions and to a lesser degree by private institutions.

(b) The Greek school education system has been centralised at the level of both planning and implementation. Curriculum contents and timetables, textbooks, and teaching methods, are totally, or to a great extent, controlled by the Ministry of Education in both state and private schools. Teachers in the State primary and secondary schools are civil servants appointed by the Ministry of Education. Until 1997 they were selected by priority of application, for the subsequent three years partly selection has been based on priority of

application and partly by examinations and from 2000 exclusively by examinations. Responsibility for the administration of all levels of school both state and private, lies with senior staff of the State directorates and offices, while responsibility for guidance on teaching and other relevant matters rests with state school advisers. In contrast with this authoritarian model, head teachers in large schools are devoid of essential and decisive responsibilities.

(c) The Greek compulsory education includes a six-year primary school ('demotiko') and a three-year secondary school ('gymnasium'). The two levels of schools maintain their autonomy in administration, teaching staff, curriculum, methods, and treatment of pupils. For the first time, the Law 1566/1985 (Greek Ministry of Education, 1985) states (article 1, paragraph 3. c) that

"The curricula of the nine-year compulsory education should have an internal coherence and a unifying development of their contents.",

yet this provision has been only partially implemented. The differentiation between these two levels of school is due to the different origin of their teaching personnel, whose vocational names are different: 'daskalos', 'teacher' in primary schools and 'kathigitis', 'professor' in secondary schools. In larger primary schools the academic subjects are taught by one teacher ('daskalos') and other subjects, such as arts and crafts, music and physical education, by specialised professors ('kathigitis'), while in smaller schools one teacher teaches all subjects. In secondary school professors ('kathigitis') of different specialist subjects teach subjects. With regards to the training of teaching staff, primary and secondary Greek teachers have different service training in Educational Psychology and other relevant subjects.

(d) The evaluation of pupils' progress in learning is estimated in school marks. It is here that the oscillations in educational policy have been more pronounced. In 1980, under a conservative government, the numerical marking was replaced in primary schools by the letters A, B, C, all of which ensure promotion (Ministerial Decision, 1980, Greek Ministry of Education,

1980, 2; Decree 497/1981, Greek Ministry of Education, 1981, 1). In the 1980s, under a socialist government, the marking with A, B, C was maintained, but was removed from the certificates that were then issued with only a 'he or she is moved up' (Law 1566/1985, Greek Ministry of Education, 1985). In 1991, under another conservative government, the numerical scale 0-10 was reinstated in the four higher classes; yet, in the first two classes the letters were raised to four: A, B, C, D (Ministry of Education, 1991). Finally, in 1995, under a liberal government, the marking was fixed as follows: (1) in the first two classes descriptive evaluation replaced all marking; (2) in the middle classes marking was replaced by the letters A, B, C, D; and (3) in the last two classes marking was replaced by the numbers 10, 9, 8, 7, 6, 5, and 'Scarcely good' for those pupils receiving under 5, pupils who present serious 'learning difficulties' (Decree 8/1995, Greek Ministry of Education, 1995, 1). Marks on the certificates were only maintained in the last two classes (Decree 121/1995, Greek Ministry of Education, 1995, 2). In secondary schools the marking scale remained unchanged over a long period from 1 to 20. In primary schools evaluation does not refer only to the pupil's performance but also to characteristics such as effort, interest, initiatives, creativity, co-operation, and respect for the rules of the school. Above all, the evaluation of primary pupils should not lead to antagonism or be used for selective purposes.

Pupils with difficulties ³ within ordinary classes are not evaluated, nor given marks in those subjects in which they have severe learning difficulties. In separate special education classes, ordinary schoolteachers in co-operation with special education teachers will evaluate pupils with difficulties.

(e) Progression from class to class is dependent on the marks gained in each subject in each of the three trimesters. In primary school a pupil may be allowed to progress to the next class if he or she has an overall average mark of at least 5. In secondary schools pupils must attain a mark of at least 10 in

³ As mentioned in section i. a. (b) of Chapter II (pp. 63-64), this research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream comprehensive educational context. It is individual class and teacher based and excludes pupils with severe learning difficulties (in the UK pupils with severe learning difficulties are referred to as SLD - severe learning difficulties - or PMLD - profound and multiple learning difficulties).

each subject or, alternatively, they may have a mark of less than 10 in up to four subjects but an average mark in all subjects of at least 13 in order to progress (Decree 409/1994, Greek Ministry of Education, 1994).

(f) Evaluation also includes pupils' behaviour and exceptional achievements. In secondary education (Decree 104/1979, Greek Ministry of Education, 1979; Decree 294/1980, Greek Ministry of Education, 1980, 1), pupils should comply with the rules set by the school and with the principles of the social environment in which they live. Accordingly, their 'conduct' is characterised as 'excellent', 'good' or 'reprehensible' and is marked on their certificates. If their behaviour deviates from the accepted one, the school may inflict a punishment upon them. The punishments assigned are: admonition, reproof, removal from class for one hour, expulsion from school for three to five days and change of school environment. On the other hand, pupils who have done particularly well in their school duties are awarded certain distinctions: progress distinction, progress prize, and public praise. In primary education the labels for the 'conduct' of the pupils were removed from their certificates in 1981 (Greek Ministry of Education, 1981, 2; Greek Ministry of Education, 1986). With regards to the pupils who come first in scholastic achievements, they are bestowed to be the flag-bearers and the flag-attendants.

(g) For pupils in compulsory state school education who have mild difficulties with learning, a kind of remedial, or reinforcing as it was called, teaching was instituted in 1991 (Decree 462/1991, Greek Ministry of Education, 1991). Pupils were expected to attend an in-between or extra program of a tutorial kind in some of the basic subjects, language, maths and science in primary and secondary schools. The responsibility for the remedial program and the tutorial groups is given to the teaching staff of the school. Current indications are that the remedial teaching programmes progress at a slow pace.

(h) It is clear that at primary education level there was the most legislation of a humanistic nature. There was also an internal reform undertaken through new curricula and books for pupils and teachers, during 1979-1985 (Greek Ministry

of Education, Pedagogic Institute, 1984). The curricula, drawn up on European and American models, consist of (1) aims, objectives and targets for each subject, (2) the subject-matter, arranged in units and sub-units according to its inner structure and the mental age of pupils, and (3) teaching procedures and pupils' activities. Pupils' workbooks include a brief exposition of the subject matter per unit and a series of assignments, mostly of an inventive kind. Finally, teacher's books, one per subject, where to be used as aids on psychopedagogic and methodological matters. Teacher's books on language, for instance, include an introduction containing the general principles of language teaching, followed by the objectives of the course, a provisional model of language teaching and additional suggestions per unit. In one such book, among other suggestions, we find:

"Teacher goes about the classroom from desk to desk, staying mainly by the pupils with learning difficulties and showing them what to correct. (...) Pupils' assignments should not be marked."

(Ministry of Education, Pedagogic Institute, 1984, pp. 18 and 39)

Pupils' workbooks are designed so that nearly all schoolwork can be done inside the classroom. Yet, most teachers, yielding to parents' pressure and the unrealistic expectations of their colleagues in secondary schools, turn to extra teaching materials and more homework.

Considering the theoretical dimensions concerning the institutional framework of the Greek education, including the philosophy of educational aims and values, as well as the basic measures of the Greek educational system and other principles of the Greek Constitution (see Chapter I, introduction) it can be concluded that:

(a) The Greek education system reflects in theory the principles of modern democracy and educational equality by providing a democratic setting for treating all pupils according to their own needs.

(b) Educational provisions include a mixture of strict egalitarian, liberal egalitarian and fair inegalitarian principles. Strict egalitarianism is expressed by providing all pupils access to education; liberal egalitarianism is expressed by the use of marking, awards and distinctions for pupils who perform well and the repetition of classes for pupils who do not perform well; and fair inegalitarianism is expressed by emphasising pupils with difficulties and compensating for their difficulties.

ii. Greek research concerning teachers' attitudes

In Greece, during the academic year of 1986-1987, there were 109,777 teachers serving in Greek educational institutions at all levels. This number of teachers corresponded to about three percent of the total Greek working population and twenty two percent of the total Greek civil servants. Of them, forty seven percent served in secondary schools, thirty five percent in primary schools, eleven percent in universities and seven percent in kindergartens. The percentage of women teachers was fifty three percent (Spyropoulos, 1990).

Primary and secondary school teachers' socio-economic origin, as based on their fathers' occupation, resulted in the frequencies in percentages as follows:

Table III. ii. : Greek teachers' socio-economic origin according to father's occupation.

<i>Father occupation</i>	<i>Kindergarten teachers</i>	<i>Primary school teachers</i>	<i>Secondary school teachers</i>
Free professionals	5.1%	4.7%	11.8%
Merchants, civil servants	20.7%	17.7%	32.9%
Farmers, workers	69.7%	73.2%	46.5%
No answer given	4.5%	4.1%	8.8%

Source: Spyropoulos (1990)

Table III. ii shows that the majority of kindergarten and primary schoolteachers come from low socio-economic backgrounds, mostly from small villages. This variation has changed over the last decade; nevertheless, the primary teacher

occupation continues to function as a means of social mobility from working class to middle class (Spyropoulos, 1990). It has been suggested that there is a tradition among lower class families to improve their social situation from generation to generation (for example, the grandfather being a farmer, the son becoming a teacher and the grandson becoming a doctor). (Pirgiotakis, 1992). According to Greek research (Freiderikou, Folerou-Tserouli, 1991), for eighty three percent of male primary school teachers and for fifty six percent of female primary school teachers, to become primary school teachers was the only way of escaping from their low socio-economic status.

Teachers' socio-economic status was considerably low, especially for primary school teachers, but in 1985 under a law enacting a flat rate of pay in the civil service, teachers' salaries were equalised with the salaries of most civil servants (Spyropoulos, 1990). During the last two decades there has been an equalisation of training between primary and secondary school teachers, firstly through the institution of four years university for new primary school teachers, and secondly, through intensive seminars for the two years diploma primary school teachers.

There are various studies about Greek primary school teachers' attitudes towards pupils and school education. The most relevant research studies done in Greece are the following six:

- (a) The first research study was carried out in 1985, in the county of Attica, Greece. One hundred and two primary school teachers were interviewed with semi-structured questionnaires (Freiderikou, Folerou-Tserouli, 1991).

The first issue of investigation was whether teachers were satisfied with the teaching profession or not. The research concluded that the majority of the teachers were not satisfied. The reasons being lack of information and knowledge, scarcity of school material, large number of pupils, unsuitable school time schedules (sometimes working in the morning, sometimes working in the afternoon) and use of classrooms by two schools (Freiderikou, Folerou-

Tserouli, 1991).

The second issue of investigation was teachers' attitudes towards school. Three groups of teachers were compared according to their political preference. In the first group were conservative, according to the answers given in the interviews. The conservative teachers' value system was in conflict with what was included in the school syllabuses and curricula, then in force, which, they perceived as too radical. This group of teachers shared the aims of the school system that existed before the 1981-1985 educational reform. The second group included the centre and left teachers, according to the answers given in the interviews. These teachers accepted the new educational reforms and followed the specific rules that determined their role in the school. The third group, which was the minority of teachers and included mostly teachers from twenty five to thirty four years old, claimed to be influenced by Marxist-socialist ideology, belonged to a certain political party and took an active part in the union movement. Their value systems and ideologies were in conflict with the educational system and they thought the reform necessary (Freiderikou, Folerou-Tserouli, 1991).

The third issue of investigation was pupils' evaluation. Fifty three percent of the teachers did not accept the new evaluation system of pupils that used the letters A, B and C; thirty five percent of the teachers accepted this system; five percent of the teachers did not accept any kind of pupils' evaluation; and seven percent of the teachers did not answer. The majority of the first group of teachers believed the traditional way of marking, using a scale of numbers, is more accurate and should not have been terminated, since they thought it was an essential part of the educational process. They also felt that by terminating marking they could not control their pupils. Teachers from the second group expressed three different opinions: (1) in favour of ending marking, as they believed that marking was the major factor creating a bad classroom environment with competition and pressure for good grades affecting both pupils and their parents, (2) sceptical about ending marking in primary schools, as marking was used in secondary schools. Teachers of this opinion were in

favour of using the letter marking because that is how 'pupils can learn to be evaluated' and (3) in favour of ending marking altogether. Teachers of this opinion claimed that the evaluation system using the letters A, B and C cannot be considered an end of marking, since there is still an evaluation scale of some type. Teachers from the third group of opinion disagreed with use of any pupil evaluation and marking, and claimed that some changes were made but only in theory, not in essence (Freiderikou, Folerou-Tserouli, 1991).

The last issue of investigation in this research is whether pupils should be automatically promoted from one grade to next. The majority of teachers were against automatic promotion because they believed that within the automatic promotion process, a pupil receives less knowledge than he or she would receive if he or she had to repeat a class. According to these teachers, the automatic promotion of pupils renders useless the commonly accepted practice by which the school tries to achieve its main didactic aim. A minority of teachers believed that establishing automatic promotion system would cause them, as classroom managers, trouble in keeping discipline in class. Others were in favour of automatic promotion of pupils thinking that automatic promotion would end 'failure' labels are ended; they also believed that by forcing pupils to repeat classes violated their rights and limited their futures, especially with regards to pupils of low socio-economic background whose parents cannot compensate for their children's failings (Freiderikou, Folerou-Tserouli, 1991).

(b) The second research study was carried out in 1987 in Crete, Greece. Its aim was to investigate factors that may cause problems to teachers teaching pupils in ordinary primary schools (Pirgiotakis, 1992). Questionnaires were used in a total sample of four hundred forty five primary school teachers out of a total of two thousand one hundred eighty three teachers in Crete. The factors causing problems were categorised into three major groups; pupils, parents and personal factors:

Pupils: low level of achievement, discipline disorders, many pupils with difficulties, large number of pupils in classes, truancy.

Parents: indifferent to children's' education, low socio-cultural background, over-demanding, and arrogant towards teachers.

Personal factors: too much pressure while they teach, family and health problems, dislike of their profession.

(Pirgiotakis, 1992).

(c) The third research study was carried out during the academic years of 1994-1996 in the Dodecanese, Greece. Its aim was to investigate teachers' attitudes towards the school failure and pupils' characteristics. A sample of two hundred sixty two teachers was used (fifty nine kindergarten teachers, one hundred and one primary school teachers and one hundred and two secondary school teachers, from a total of nine hundred twenty teachers) (Kaila and Theodoropoulou, 1997). The researchers interviewed the teachers with semi-structured questionnaires.

The results, as summarised:

With regards to teachers' perceptions of the so-called 'good pupil', teachers favoured the pupils' characteristics of good behaviour, IQ, and performance. Kindergarten teachers believed that pupils' IQ was the most important, primary school teachers thought good behaviour was the most important and secondary school teachers thought that pupils' performance was most important (Kaila and Theodoropoulou, 1997).

With regards to the integration and inclusion of pupils with difficulties in ordinary schools, the results are as follows: twenty three percent of the teachers favoured full integration and inclusion; thirty percent favoured partial integration and inclusion by using both special and ordinary schools; and forty seven percent favoured the use of special school units for pupils with difficulties. Kindergarten teachers were mostly in favour of fully integrating and including pupils with difficulties in ordinary schools, secondary school teachers

mostly favoured partially integrating and including pupils by using both special and ordinary schools to that end. Primary school teachers were in favour of using special school units for pupils with difficulties (Kaila and Theodoropoulou, 1997).

Finally, with regards to ways of handling problematic situations which involve pupils with difficulties in ordinary classes, thirty nine percent of teachers claimed that their main approach is through love and affection; thirty two percent said that they tried various ways to make pupils feel comfortable in the school and in the classroom; and twenty nine percent promoted co-operation with pupils' parents and various specialists. For appropriate and effective treatment of pupils with difficulties, fifty seven percent of teachers believed that when dealing with pupils with difficulties it is necessary for the teacher to have the right training; twenty three percent of teachers believed that dealing with pupils with difficulties is a specialists' matter; and twenty percent of teachers thought that love and care are essential in order to handle pupils with difficulties (Kaila and Theodoropoulou, 1997).

(d) The fourth research study was carried out in 1996 in Crete, Greece. Its aim was to investigate teachers' willingness to teach both ordinary pupils and pupils with difficulties in the same class and what the necessary conditions would be for teaching both pupils with and without difficulties. A sample of sixty teachers was used and approached with semi-structured questionnaires; among them were seven special schoolteachers, two physical education teachers and one social worker from three ordinary schools and one special school (Riga, 1997). Findings as summarised:

First, with regards to teachers' willingness to teach both ordinary pupils and pupils with difficulties in the same class: (1) The majority of the teachers expressed a negative attitude towards teaching in a special school or class due to insufficient training and an unwillingness to be involved in such difficult task, (2) the majority of teachers disagreed with teaching both pupils with and without difficulties in the same class arguing that in that case they will have the

dilemma of choosing pupils to concentrate on more, (3) the majority of teachers supported the possible operation of special school units inside ordinary schools on the condition that changes were needed for this system to work, (4) the majority of the teachers claimed that they needed more hours to teach a class with both pupils with and without difficulties and (5) some teachers favoured teaching both pupils with and without difficulties on the grounds that integrated teaching would enable socialisation of pupils with difficulties.

Second, with regards to what the necessary conditions would be for teaching both pupils with and without difficulties: (1) individual approach teaching, (2) adequate training for teachers, (3) curriculum reform and changes to school buildings, including the construction of gymnasiums and laboratories, (4) smaller number of pupils in each class, (5) teaching material adapted to meet the needs of pupils, (6) a friendly and acceptable classroom environment for all pupils teachers' co-operation with and help given by support services, (7) parents' and other people's familiarisation with the difficulties pupils have, and (8) ordinary school pupils' fostering of friendly and positive attitudes towards pupils with difficulties. The majority of the teachers agreed that the above conditions can work more effectively when the approach towards pupils - especially the ones with difficulties - is loving, affecting and understanding (Riga, 1997).

(e) The fifth research study is an unpublished piece of research undertaken by Vaikousi-Vergidou in Thessalonica, Greece in 1994 on primary school teachers' attitudes towards pupils' skills in writing and reading. Teachers expressed their opinions about the causes of school failure through semi-structured questionnaires. The most frequently specified causes were: (1) pupils' low IQ, (2) pupils' heredity, (3) pupils' laziness, (4) family indifference, and (5) use of schoolbooks that favour only the pupils without difficulties (Katsikas, 1997).

(f) The sixth research study was conducted by Hopf and Hatzichristou (1999) on teacher gender-related influences in Greek primary and secondary schools. Findings as summarised: (1) in primary school, female teachers evaluated children's adjustment as less problematic regarding various aspects of their academic and psycho-social functioning. There was no differentiation between male and female teachers' evaluation of girls' interpersonal behaviour, while female teachers evaluated more positively boys' interpersonal behaviour as compared to their male colleagues; (2) in secondary school, while female teachers were more accepting of the problems of poor pupils, male teachers assessed children's interpersonal behaviour as less problematic than their female colleagues; and (3) teachers' specialisation affected teachers' evaluation. Humanities' teachers were found to assess pupils' psychosocial behaviour patterns more positively than maths and science teachers do. This last finding is in accordance with an earlier research finding reported by the same researchers (Hatzichristou and Hopf, 1991).

Looking at the research concerning Greek teachers' attitudes it can be concluded that:

(a) There were no comparisons made between kindergarten, primary and secondary school teachers' attitudes, which might be proved useful and interesting. A similar comparison was made possible by Kaila and Theodoropoulou (1997) research, which concluded that pupils' performance is more important for secondary school teachers than for teachers at primary school.

(b) Synthesis of the above research studies on the ways of approaching pupils with and without difficulties illustrates that the majority of teachers were concerned with this issue because they experienced it daily, in working with pupils with difficulties (Pirgiotakis, 1992). Though they were generally positive towards teaching both pupils with and without difficulties in the same class, they were sceptical about the practicality of such teaching. For example, the research conducted in Crete, Greece (Riga, 1997), concluded that the majority

of teachers disagreed with teaching both pupils with and without difficulties in the same class because they lacked certain basic conditions. The research conducted in the Dodecanese, Greece (Kaila and Theodoropoulou, 1997), the teachers' attitudes varied, most of the teachers acknowledged that they were not adequately trained to handle pupils with difficulties and that they needed more training to do their job properly. Many teachers blamed the parents of pupils' with difficulties for not caring enough for their children (Katsikas, 1997). Furthermore, the Greek research discussed above indirectly relates to the issues of automatic pupil's promotion and marking, except the first one (Freiderikou, Folerou-Tserouli, 1991) where the teachers' views show a strong attachment to school tradition. Finally, Hopf and Hatzichristou (1999) explored the influence of teachers' gender and specialist qualification on their attitudes towards pupils and they found that female and humanities' teachers are more positive towards their pupils than their male and maths and sciences' colleagues.

(c) None of the Greek research discussed above examined the theory-practice association. None of the research examined the relationship between Greek teachers' attitudes and classroom behaviour. It is one thing to ask teachers what they believe (their theory in action) and another to examine what they do in classroom practice (their theory in use). The distinction between teachers' theories in use and theories in action (see Chapter I, section iv) has not been acknowledged by the Greek researchers mentioned in this chapter.

iii. A typical Greek mainstream classroom in two variants

The following section is based on the researcher's impressions from his observations in Greek primary and secondary mainstream school classrooms, conducted during the 1997-1998 academic year.

a. Variant one: a Greek primary school classroom.

We are in Athens, Greece. The classroom that we will visit belongs to a primary school of twelve classes, each of the six school grades having two classes and each class having its own teacher. It is morning and pupils are still in the schoolyard. Entering the empty classroom, we can see teacher's desk put in front of pupils' desks which are assigned in three columns with five rows. The pupils' desks are in front of the blackboard. In a few cases the teachers arrange the pupils' desks in a semicircle, but then there would be a problem for some pupils' view of the blackboard, which is an essential part of a Greek teacher's teaching style. The classroom has enough light coming from the windows. The walls are hung with maps and pupils' drawings. In one corner there is a bookcase and some teaching materials.

The same teacher, who normally does not teach in other classes, does most of his or her teaching in one classroom. In this way the primary school teacher is a familiar person to his or her pupils and knows each one of his or her pupils, their personal characteristics, strengths and weaknesses, and calls them by their first names. Specialised teachers are employed for teaching foreign languages (mainly English and French), physical education and arts. The school headteacher does not teach much since his or her task is managing the school. An average school hour is forty-five minutes. Every lesson is taught for one school hour apart from language and maths, which are sometimes taught for two continuing school hours. There are intervals among teaching hours, the first of which lasts fifteen minutes and the others less than ten minutes. The schedule in force provides five school hours at school per day in a total of twenty-five school hours per week held either in the morning or

in the afternoon. Primary teachers base their lessons on state schoolbooks given free to all pupils and used in all Greek schools. These books follow instructive learning theories. They contain the subject matter in learning units, which are provided in a stimulating and problem-solving manner. They also involve a series of written works to be done on the basis of relevant guidelines and examples. The whole process requires the pupils' involvement in the various tasks inside the classroom.

The teacher is now in the classroom and starts with a few minute examination of the pupils to assess whether they have understood the previous day's lesson. His or her main aim is to check if any pupils have difficulties or problems with what they were taught the previous day; if they do, he or she either repeats the teaching or focuses on the pupils with difficulties. The pupils' examination is carried out on a sample of pupils depending on the lesson taught. Thus, in the language lesson some pupils read the text, which was assigned for homework, and all of them are doing their spelling exercises. In the maths lesson some pupils are assigned to solve exercises and maths problems on the classroom blackboard. In the other lessons pupils answer the teacher's questions or they express verbally to the teacher what they have studied.

After the brief examination, a new learning unit is introduced. This can be done in various ways, depending on the subject to be taught, but always involves teacher-pupil interaction because the schoolbooks presuppose pupils' involvement in the learning process. The language lessons especially use pupils' involvement and the teacher's role is supposed to be focused on clarifying pupils' questions and interfering only when there is a need to explain. Nevertheless, due to the fact that there is a teacher-centred tradition, most of the primary teachers seem to get the lion's share of the lessons interactions. Pupils sit all the time at their desks. They move only when there is a specific reason: to write something on the blackboard or for another task assigned by the teacher. During the teaching of the next lesson, the teacher stands or sits by his or her desk in front of the pupils and does most of the talking, analysing

and explaining of issues. He or she asks some pupils in order to check the extent to which they understand the new learning unit.

After the teaching of the lesson is complete, pupils start to deal with assignments and problems relevant to it, set by the books in order to stimulate more active involvement in the learning process. During this phase the teacher moves from desk to desk in order to check how pupils are doing, to give feedback wherever needed and to be ready to give clues to pupils and persuade them to concentrate more on their tasks. In most cases each pupil works alone at his or her desk; sometimes pupils work in pairs and rarely in groups, like in certain lessons and topics like environmental and social studies.

Now it is time for the pupils' assignment correction. This is supposed to be done by the entire class by the pupils themselves. The teacher only supervises the procedure. However, some teachers follow the traditional procedure by giving instructions concerning pupils' assignments from their desk. Each pupil bringing his or her assignment to the teacher, causing interruptions and disruptions follows this. Other assignments, which need preparation at home by pupils, are not normally given. Only a few home-based assignments are given in specific and basic skills such as reading, spelling and maths. These assignments are supposed to ensure that pupils fully understand the topics taught and that pupils stay in a state of readiness for the next lesson. However, many teachers supply assignments to pupils for preparation at home, mainly due to pressure from pupils' parents, especially the wealthy ones, who believe that an increased workload ensures the quality of their children's learning. This phenomenon, which has its roots in a long tradition, especially in secondary schools, is increasingly becoming a reality in many schools in Greece nowadays. This violates the teaching manuals,' teaching principles and pupils' rights for fun and play. Ironically, most of the teachers do not have sufficient time to look at all the pupils' assignments properly since they do not stay in school after the end of lessons.

In terms of pupil evaluation, Greek primary schools do not use any standardised evaluation tests. The schoolbooks contain repetitive sheets at the end of every learning unit, which are used for reinforcement, diagnostic and evaluating purposes, that is to check and evaluate on a more empirical basis the progress, strengths and weaknesses of pupils. Even without these tests, primary school teachers know the pupils' characteristics quite well due to the time they spend with them. Consequently, a primary school teacher does not need to test or mark a pupil's assignment in order to get the pupils' grade for every term. It is important to note that primary school teachers do not have to mark pupils' everyday assignments, however, most of them do due to pressures from pupils' parents. All primary school teachers have to do is enter an official grade for each pupil at the end of each term, the average of which awards the pupil's class certificate.

Pupils in a typical Greek primary classroom are engaged in various lesson activities that are mainly set by their teacher. Teacher is undertaking almost everything: presenting the new lesson, giving certain guidelines, assigning tasks to the pupils, supervising pupils' work, disciplining pupils and providing feedback whenever is needed. The teacher's basic tool for doing this is verbal interaction with the pupils. The teacher normally talks to the class as a whole; interactions with individual pupils take place under circumstances, such as when setting assignments for pupils or giving feedback to pupils. Pupils are supposed to listen carefully to what their teacher tells them and follow his or her guidelines. Some pupils are assigned a specific task (like go to the blackboard and solve a maths problem), while others ask the teacher something concerned with the lesson or do some questions or talk with their classmates and so on.

b. Variant two: a Greek secondary school classroom.

The secondary school classroom has many similarities with a primary school classroom in terms of room organisation, blackboard, teacher's desk and pupils' desks. The average number of pupils per class in a typical secondary school class is larger than in a primary school, approximately about thirty pupils. Nevertheless, there are some key differences in terms of the teaching personnel, schoolbooks, teaching methods and pupils' evaluation.

There are various teachers in secondary school with different kinds of specialist subject qualifications, like Humanities, Maths and Science and Physical education. Schoolbooks are provided for free and are the same for all Greek secondary school, but they do not follow the structure of the primary school books. Secondary school books are textbooks containing only the text (basic curriculum issues) to be taught without the relevant assignments or instructions (with the exception of the books on Modern Greek language). Moreover, since most of the secondary school teachers teach in more than one class, they do not have the time to become familiar with their pupils with the exception of humanities' teachers who teach many hours in their main class.

Teaching methods and pupils' evaluation techniques employed in the secondary school class are more traditional and follow older methods of teaching, which takes place on a whole class basis with little individual interaction. In a typical secondary school hour, the teacher will probably start teaching by examining some pupils in the lesson they were recently taught. These pupils, usually randomly drawn from the teacher's list, are supposed to know their lesson well and express it either verbally to the teacher or answer questions. After the completion of this task, the teacher usually marks the pupil's performance and starts the presentation of the next lesson. During this process the teacher usually talks to the class as a whole and uses a limited number of examples on the blackboard. At the end of the presentation the teacher asks pupils questions to see whether they have understood the lesson

or not.

No standardised evaluation tests are used in Greek secondary schools. Teachers usually give their pupils examination papers for either a specific lesson being taught on one day or for a series of lessons being taught over a long time (a term for example). The teachers mark these examination papers on an empirical basis. The average marks for these papers are combined with the marks obtained by the verbal examination of the pupil, which results in the official pupil's term mark.

Furthermore, most of the secondary school teachers' behaviour towards their pupils is dependent on their pupils' performance and adherence to the school rules. Secondary school teachers give importance to pupils' efficiency and praise their performance. There are some teachers, though, who have been affected by theories of humanistic psychology, yet this still does not seem to affect their behaviour in class.

In attempting to conclude the observations of Greek classrooms, the researcher's impression was that these classrooms were not different from those he experienced as a pupil two decades ago and even from the middle of the century, depicted in the Histories of Greek Education. Most of teaching takes place on a whole class basis with little individual interaction. Most of the time teachers talk and pupils listen. The majority of teachers assign the same homework to all pupils. Primary school teachers do not have to mark pupils' everyday assignments; in practice, however, most of them do due to pressures from pupils' parents. These characteristics appear more marked in the case of secondary school teachers. They mark pupils' verbal performance as well as homework assignments and written examination papers.

Conclusions

The conclusions from this Chapter can be summarised as follows:

(a) The Greek education system reflects in theory the principles of modern democracy and educational equality in that it provides a democratic setting for treating all pupils according to their own needs.

(b) Educational provisions include a mixture of strict egalitarian, liberal egalitarian and fair inegalitarian principles. Strict egalitarianism is expressed by providing access to education to all pupils; liberal egalitarianism is expressed by the use of marking, awards and distinctions for pupils who perform well and repetition of class for pupils who do not perform well; and fair inegalitarianism is expressed by emphasising pupils with difficulties and compensating for their difficulties;

(c) None of the Greek research discussed examined theory-practice association. The studies did not examine the extent to which Greek teachers applied in classroom practice what they said in theory. It is one thing to ask teachers what they believe (their theory in action) and another to examine what they do in classroom practice (their theory in use). There is a distinction between teachers' theories in use and their theories in action and the research findings indicate that the various levels of association between teachers' attitudes and their classroom practice that the Greek researchers have not acknowledged.

The most plausible reason for this is that there is no continuity in the changes set by the recent educational reforms. The Greek governments introduced new theoretical legislation, yet some items contradicted each other or did not follow the previous governments' measures. There was no clear guide to determine where the focus should be drawn. Some of the reforms had a socialist orientation, some others had a conservative one, and a government regardless of its ideology sometimes adopted these as a whole or in part.

Research findings support that there is some confusion concerning the changes needed to be made in the educational scene. There is disagreement between teachers, administration staff, school counsellors, educators and school psychologists about basic educational issues such as curriculum organisation, textbooks, pupils' evaluation, special education, ways of treating pupils with difficulties and classroom management. It can be argued that research findings are not applied as much as they should by the educational authorities, so discrepancies are created between teachers' attitudes and their classroom behaviour. It is puzzling to support ideas in theory, for example the idea of integration and inclusion, without understanding that in classroom practice it is difficult to materialise. According to the observations of Greek classrooms, what is happening inside the Greek classrooms has little to do with the theoretical declarations made the Greek Ministry of Education. Furthermore, Greek research studies did not examine whether teachers in Greece applied their attitudes in classroom practice. Therefore, research is necessary to connect theory and classroom practice in Greece. By associating the research findings of teachers' attitudes, teachers' classroom behaviour and the educational reforms, would result in consistent and helpful changes for everyone involved in the educational process.

CHAPTER IV

Methodology

Introduction

This Chapter deals with the methodological aspect of the research. The Chapter consists of six sections. The first section deals with general methodological issues. The second section describes the characteristics of this research and data collection tools used, such as structured questionnaires and observations to examine teachers' attitudes ¹ and classroom behaviour. The third section analyses the questionnaire and observation pilot studies conducted in order to construct the questionnaire statements and observation categories and design the questionnaire statements and observation categories' measurement format. The fourth section describes the questionnaire and observation used in the main research. The fifth section analyses the research questions and the final section gives a description of the sample used in the research.

As mentioned in Chapter III section ii, there is no significant evidence of a Greek research study that examines the association of Greek teachers' attitudes with their classroom behaviour. The theory, outlined in Chapter I, section iii, suggests that there is a distinction between teachers' theories in use and theories in action. Research findings from the UK, US and elsewhere suggest that in classroom practice teachers focus less on pupils with difficulties ², whereas in theory they are positive towards them (see Chapter II, sections ii. a and i. b respectively). Research findings from the UK and the US also indicate that there are various levels of associations between teachers' attitudes and their classroom behaviour (see

¹ As mentioned in section i. a. (a) of Chapter II (p. 59), this research defines the term 'attitude as teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option.

² As mentioned in section i. a. (b) of Chapter II (p. 63-64), this research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream compulsory educational content. It is individual class and teacher based and excludes pupils with severe learning difficulties (in the UK pupils with severe learning difficulties are referred to as SLD - severe learning difficulties - or PMLD - profound and multiple learning difficulties).

Chapter II, section ii. b). The association between teachers' attitudes and their classroom behaviour could vary according to the type of research and more specifically on whether teachers are observed before they are asked to reveal their attitudes or not (see Chapter II, section ii. b). In this research structured observations and questionnaires were used in order to examine Greek teachers' classroom behaviour, their attitudes and the associations between them. Teachers were first observed in class and then asked to complete the attitude questionnaire. This sequence prevented the questionnaire from affecting teachers' classroom behaviour. Both quantitative and qualitative methods were used - the latter ones mainly in the pilot studies - but the main research is deductive and quantitative. Qualitative methods were used in order to enrich the questionnaire statements and observation categories and strengthen their validity.

The questionnaires and observations were used in the research to measure Greek teachers' attitudes towards educational equality, as defined in Chapter I. The three models of educational equality (strict egalitarian, liberal egalitarian and fair inegalitarian) were transformed into questionnaire statements, some of which were transferred into observable categories. This Chapter describes how the questionnaire statements and the observation categories were constructed. Three questionnaire and one observation pilot studies were conducted to reach the finalised questionnaire and observation schedule format. The first questionnaire pilot study was concerned with constructing the questionnaire statements. The second and third questionnaire pilot studies explored two attitude measurement scales, the first one being an agreement and disagreement scale and second being a scale that includes three options. The observation pilot investigated the validity of the observation categories and the extent to which they are associated to the expressed teachers' attitudes.

The research questions investigate the following three main aspects:

(a) Greek teachers' attitudes. Do Greek teachers favour more the strict egalitarian, liberal egalitarian or the fair inegalitarian models of educational equality?

(b) Greek teachers' classroom behaviour. Do Greek teachers reveal in their interactions with their pupils a tendency to apply the strict egalitarian, liberal egalitarian or the fair inegalitarian models of educational equality?

(c) associations between teachers' attitudes and their classroom behaviour. Is there any significant association between Greek teachers' attitudes towards the three models educational equality and their interactions with pupils in class?

The research took place in Greater Athens, Greece on a representative sample of mainstream compulsory primary and secondary schools.

i. Methodology characteristics

a. Two different epistemological positions?

Two main traditions referring to two different epistemological positions can be distinguished in the history of research: the first one is hypothetical-deductive, experimental or positivist and the second one is inductive, naturalistic, contextual or interpretative (von Wright, 1993). Each tradition follows its own philosophical principles concerning the conception of reality, uses its own methodology and translates its data collection tools into practice (Jupp and Norris, 1993)

The hypothetical-deductive approach emphasises universal laws of cause and effect based on an explanatory framework, which assumes that reality consists of a world of objectively defined facts that establish casual relationships; in accordance with this assumption, the hypothetical-deductive researcher tries to control all possible research variables that affect prior theory (Bryman and Cramer, 1990). In other words, the shift from theory to practice is tested: a prior theory is assumed to direct the processes of collection, analysis and interpretation of data (Henwood and Pidgeon, 1993). The hypothetical-deductive approach also seeks to aggregate and generalise its findings. Generalisation is closely related to the so-called external validity (Oppenheim, 1992). The objective is to take a selected sample from the whole population and generalise it for the larger population. To do so, hypothetical-

deductive researchers use data collection tools like structured or non-participant observations, experiments, structured questionnaires and interviews; these data collection tools are supposed to produce results that can be reproduced to all the target instances to which the hypothetical-deductive researcher intends to generalise (the population, situation, time, treatment, measures, study designs and procedures) (Schofield, 1993). Quantification, including standardisation, measurement and numeration, is crucial in the hypothetical-deductive approach (Bryman and Cramer, 1990).

The inductive approach seeks to uncover relations among phenomena. It is more a discovery-based approach; inductive researchers may be unwilling or unable to specify their theoretical concerns in advance of the study, so there is a tendency to move from data to theory (Henwood and Pidgeon, 1993). According to inductive researchers, human behaviour is complex, not reducible to fixed patterns and is shaped by various cultures (Hammersley, 1992). In adopting this conception of the social world, inductive researchers often emphasise process rather than structure, and description rather than explanation, as well as show a devotion to the study of local and small-scale situations and stress diversity and variability of social life (Hammersley, 1990). Inductive researchers are not particularly interested in ensuring generalisation of their findings. Their main intention is to establish the internal validity of their findings. To do so, they employ various empirical collection tools, but rely heavily on observation and relatively informal conversations (Miles and Huberman, 1994).

There is a debate over which of the two main epistemological approaches is the most appropriate (Bryman, 1992; Bullock et al., 1992; Hammersley, 1999). On one hand, inductive researchers claim that operationalisation of sociological concepts into quantitative indicators reduces the meaning of these concepts. Inductive researchers suggest that if we want to understand the social world, rather than just imitating the natural sciences, we should harmonise our methods of inquiry to our purposes (Hammersley, 1989). On the other hand, deductive researchers criticise inductive researchers' devotion to description on the ground, as it does not develop valid explanations and theories; they also question the means by which inductive

researchers assess the validity of their explanations and theories (Bryman, 1988). A fundamental question asked by deductive researchers is how inductive researchers know that deductive research fails to capture social reality? If access to social reality is through everyday experience of the social world, what is the justification for accepting this to represent the true nature of the world? (Hammersley, 1989). The dilemma concerning social research is derived from whether social phenomena can be understood by taking account of subjective or objective factors. Hammersley (1989) identifies Blumer (1939) as one of the first researchers to explore this dilemma. According to Blumer, it is almost impossible for researchers to capture and shape subjective factors to meet the requirements of science. The researcher needs to 'choose' one approach or the other. When Blumer introduced (1939), this dilemma it seemed impossible to solve. Blumer's dilemma relates to the unity versus the diversity of science. Are all sciences fundamentally similar in methodology, or do they differ profoundly in both assumptions and techniques? Apart from differences in principles and theoretical standpoints, we can assume that epistemological approaches can be combined at least when methodological issues are concerned.

b. Two different methodological positions?

The two epistemological positions described above use different methodologies. This has resulted in a traditional categorisation as far as methodological strategies are concerned. That is, some strategies have been described as quantitative (deriving from a deductive position) and others as qualitative (deriving from an inductive position) (Bryman, 1992). However, researchers have challenged the assumption that qualitative and quantitative methods represent two distinct and opposed approaches to the study of the social world (Bryman, 1988, 1992; Hammersley, 1989; Bullock et al., 1992). The argument that that validity can only be obtained with numbers taken from 'scientific' experiments (experimental psychology, engineering, etc.) is too simplistic. Precision does not necessarily mean numbers, and accuracy may not be best expressed numerically. Sometimes numbers do not reflect reality and their interpretation is subjective. However, the same applies to descriptions of the reality made by ethnographers; they may be subjective in their interpretations of their findings as well.

It seems that the best way of conducting research is to combine both quantitative and qualitative strategies. The reason being that by combining approaches we can best depict the complexity of our surroundings. It is believed that qualitative and quantitative approaches focus in different ways on meaning and behaviour, even though qualitative approaches are supposed to be more concerned with meaning and quantitative approaches with behaviour (Hammersley, 1989). The qualitative approach tries to interpret the meaning of data in relation to the content, which are gathered, whereas the quantitative approach tries to minimise the contextual influences by standardising the procedures of data collection (Wragg et al., 1996). It seems that qualitative data collection puts validity first and quantitative data collection puts reliability first. However, elements of both approaches are being used in almost all research. Researchers may differ about when or at what stage of their research they use qualitative or quantitative techniques, but the issue is not the difference between the two approaches. Depending on the situation, one may start with qualitative techniques in order to establish validity of the data collection whereas in the final stage of the research, in which large amounts of data are gathered, he or she may use quantitative techniques for standardisation and establishing the reliability of the data.

ii. The research method and data collection tools used in this research

a. Research method.

This research adopted the deductive approach, as the theory is developed and applied in practice. This research conceptualised a theory about educational equality and teachers' theories in use and action, and it operationalised this theory by using questionnaires and observations of a representative sample of teachers in order to generalise its findings. In this way this research is mainly a quantitative survey because it uses quantitative data collection and analysis. However, qualitative elements were adopted during the questionnaire and observation pilots in order to enrich questionnaire statements and observation categories' validity. The qualitative

approach was employed at the first questionnaire pilot study and the observation pilot study in order to adopt an exploratory and interpretative approach to ensure the internal validity of the research. At this stage the researcher used qualitative data collection and analysis, including teachers' comments and notes. In the later stages of the research data collection and analysis were taken from quantitative data, because generalisation from the specific findings was necessary. A survey was used because a survey incorporates a whole range of methods and enables standardisation of the procedure and generalisation of the findings (Oppenheim, 1992). On the other hand, it is quite possible that it will prove hard to control the environment and therefore making it difficult for the researcher to be objective in the traditional sense (Anderson and Arsenault, 1998). In other words, controlling external variables and the conditions of the research is impossible under real life conditions (Eisner, 1991). Within the classroom settings, it is even more difficult to account for all the existing variables (Wragg et al., 1996). Controlling all variables cannot be accomplished in any research sense (Anderson and Arsenault, 1998). Hammersley (1989) argues, that if a researcher is able to use first a qualitative approach in looking at his or her aims and then apply a quantitative approach to standardise it in different settings, he or she will have probably reached the best approach to analysing and explaining reality.

b. Data collection tools.

As mentioned in the introduction of this Chapter, the data collection tools used in this research include questionnaires and observations. The questionnaires explored teachers' attitudes towards educational equality and the observations investigated teachers' classroom behaviour. Using the deductive approach does not necessarily mean that questionnaires and observations should be used for collecting data. However, it has been argued that their use is justified because of the nature of this research, which is a survey.

(a) Questionnaires.

Questionnaires are difficult to design, administer and analyse. In applying questionnaires to school practice, one is likely to end up learning a lot about

questionnaires and very little about the school (Walker and Adelman, 1975). Questionnaires allow teachers the time to give a considered reply to questions; moreover they permit the researcher to select a sample of teachers with differing or perhaps similar accounts of preferred practice, and then observe them at work in their classroom (Wragg, 1994). However, in that case, the researcher might not observe teachers in normal habits, because teachers will be aware of the topic of the research and therefore alter their classroom behaviour (Wragg et al., 1996).

The questionnaire has a job to do: its function is measurement and the specification should state the main variables to be measured (Oppenheim, 1992). Before constructing the questionnaire, one should have formed an idea of the pattern that the inquiry is likely to follow. It is necessary to make a number of decisions before beginning to write the first questions. These include the main and auxiliary methods of data-collection, the method of approach to the respondents, the build-up of question sequences, the order of questions, other techniques within the framework of the questionnaire, the order of questions for each variable within each question sequence and finally the use of pre-coded or closed versus free-response or open questions (Oppenheim, 1992; Robson, 1993; Anderson and Arsenault, 1998).

The main problem when using an attitude questionnaire is how to construct attitude statements. Oppenheim's work (1966;1992) on attitudes' measurement has been one of the most influential and the researcher adopted some of his ideas on how to write attitude statements. According to Oppenheim, attitudes are abstractions - though they are real enough to the individual who holds them. Attitudes run from positive, through neutral, to negative feelings about the object or issue in question, making people feel good, pro, or favourable, or bad, anti, or unfavourable towards an attitude object - and indifferent in between. So attempts at measurement concentrate on trying to place a person's attitude on the straight line or linear continuum, in such a way that he or she can be described as mildly positive, strongly negative and so on, preferably in terms of a numerical score or else by means of ranking. Nevertheless, there is no proof that this linear continuum model is correct, though it ease the measurement purposes. However, attitudes cannot be so easily measured. Sometimes it is not only a question of agreeing or disagreeing with a

statement. An attitude statement may contain a number of options to which someone could be more for or against. The process of writing attitude statements is not simple; attitudes should be meaningful and interesting, even exciting, to the respondents. Remembering that attitudes have an emotional aspect, the rational approach should be avoided in writing attitude statements and select the more contentiously worded statements of opinion; and not be reluctant to use phrases relating to feelings and emotions, hopes and wishes, hates, fears and happiness. It may be detrimental to make the purpose of inquiry too obvious. One way of avoiding this is making direct statements more indirect.

Questionnaires are among the most common data collection tools used by researchers. Their advantages and disadvantages are well known. However, it is a different issue when an individual is developing and conducting their own questionnaire instead of using a standardised questionnaire. It is essential in the first case to pilot and standardise the questionnaire and this ensures that the questionnaire suits the researchers' purposes. An attitude questionnaire was constructed specifically for this research. The attitude statements were determined by the type of measurement format to be used. Two main attitude measurement formats are considered in this research: one that includes a scale of agreement and disagreement to attitude statements and the other that includes two or more options to choose from. This research underwent two attitude questionnaire pilot studies in order to construct the most appropriate measurement format. Each pilot study explored one format and concluded that two options in each attitude statement format was the most effective and appropriate. The attitude questionnaire used in the main research was a structured one and included two options for each of its statements.

(b) Observations.

Skilfully done, classroom observation can be a valuable tool for improving the quality of teaching, but if badly handled, it can be a disaster (Wragg, 1994). The method of classroom observation should suit its purpose. The purpose, timing and content of an observation should largely determine its methods. Two types of observation methods have been developed for use in classrooms. The first method, called

interaction analysis, systematic observation or structured observation, seeks to define each particular behaviour of interest in an unambiguous way so different observers viewing the same events will record them in the same manner (Cavendish et al. 1990). Systematic observation in classrooms is an approach that uses a system of highly structured observation procedures applied by trained observers to gather data on patterns of behaviour and interaction in classrooms (Croll, 1986).

The second approach is associated with ethnographic, qualitative or participant observation techniques in which the observer attempts to understand the meaning of social relations and social processes in the classrooms for the subjects being observed. He or she conveys this by means of field-comments and verbatim accounts of selected episodes rather than quantitative analysis (Croll, 1986). This approach is often called participant observation because the observer talks to, and participates in activities with the people he or she is studying. Unlike structured observation, when the observer attempts to remain outside the action, 'the fly on the wall approach', using participant observation the observer takes an active role in the proceedings (Cavendish et al. 1990). Participant observation, does not simply mean watching and describing what seems to be going on in a classroom, but include attempts to reconcile the observers' feelings and responses to events (Walker and Adelman, 1975).

There has been considerable debate over the appropriateness and methodological adequacy of the two observation approaches (Wragg, 1994). Proponents of systematic techniques have suggested that qualitative approaches can be subjective and unreliable (Cavendish et al., 1990). Ethnographic observers argue that the claim to objectivity of the results attained by systematic observations are largely not authentic and by concentrating on what can be classified and measured, such techniques miss out what might be most important in classrooms (Hammersley, 1993). Yet the two methods can be seen as complementing each other rather than alternative approaches (Croll, 1986). Structured observations are often criticised because they simply provide frequency counts of events and the descriptions of classroom events lack substance colour (Hammersley, 1990). On the other hand, participant accounts of classrooms often yield vivid description of what it is like to be

a teacher or a pupil, but it is difficult to check the accuracy of the description, or to know if the description can be generalised beyond the particular classroom where the events took place (Cavendish et al. 1990). An ethnographic critique of structured observation suggests that a major issue in systematic observation is the limited number of pre-defined categories as the basis for describing classroom activities (Hammersley, 1992). This leads to related criticisms that observation systems can only provide a partial view of classrooms, sometimes even a biased view, and it is an inflexible research instrument as the observer is constrained by the pre-defined categories (Croll, 1986). Much of criticism directed at systematic observation derives from reservations about quantification and the use of statistical data. Some researchers are uneasy feeling about presenting quantitative data about social phenomena, as it is inappropriate and numbers cannot reflect social reality (Hammersley, 1993).

Nevertheless, despite disputes over the appropriateness of the classroom observation techniques, the observer needs to be sure of what he or she is observing. A classroom is a complicated social environment where many things happening simultaneously. Therefore, before the main observation phase, a pilot study is needed (Wragg, 1994). During the pilot observation study, the observer can use various observation categories and test their applicability in classroom practice (Wragg et al., 1996). For example, the category 'praise' seems specific, but when applied in a real classroom setting the aspect of human behaviour and language that can be included in this category need to be described. The researcher can also use the pilot phase to participate in the classroom activities he or she is observing, interact with the teacher and the pupils and try to gather information that would enable him or her to construct more adequately observation categories. The piloting of observation categories can increase the validity and the strength of the categorisation. It is also necessary for the researcher to remain as objective as possible, otherwise, according to Hacker (1992)

"there is a likelihood that classroom interactions may be influenced unintentionally, or that results may be unwittingly biased in favour of the hypothesis tested."

(p. 534)

This research used structured observations in order to examine teachers' classroom behaviour. Observations' format correlated with the structured questionnaires' format. Observations included structured categories to be observed, which synchronised with some of the questionnaire statements, but also investigated any other features of the teacher-pupils classroom interactions that needed to be thoroughly studied on a structured basis. This was accomplished through a pilot phase during where qualitative feedback from teachers' comments was used in order to enrich the structured observation categories.

c. Why use questionnaires and observations?

Few dispute that attitudes are predictably related to behaviour. However, this is a problematic assumption about attitudes because: (1) people are not necessarily consistent between their attitudes and their behaviour, thus it would be difficult to know what this inconsistency means, and (2) to assume that attitudes cause behaviour raises questions concerning the nature of the causal process (what happens in between the expressed attitude and the actual behaviour) (Ajzen and Fishbein, 1980; Eiser, 1990)

The aim of the research is to examine Greek teachers' attitudes and their associations with their classroom behaviour and a combination of questionnaires and observations to examine this is used. As mentioned in Chapter I, section iii. there is a distinction between teachers' theories in use and theories in action. Furthermore, other research findings indicate that the association between teachers' attitudes and their classroom behaviour varies (see Chapter II, section ii. b). Chapter II also refers to research findings that indicate teachers' tendency to be positive towards pupils with difficulties (see section i. b), whereas research findings concerning their classroom behaviour indicate the opposite (see section ii. b). These research findings indicate a possible inconsistency, which needs to be investigated, especially within the particular Greek educational content where there is evidence to suggest that there is inconsistency between the Greek theoretical educational declarations and the compulsory Greek school practice (see Introduction, section ii).

iii. Pilot studies

Pilot studies' general characteristics.

The type and length of pilot phase to be conducted prior to the main survey is dependent on the aims of the study and the quality of previous research on the topic undertaken by other studies (Anderson and Arsenault, 1998). The main emphasis of pilot phase will be devoted to those problems that are thought to be most difficult from the outset and most important from the point of view of the survey as a whole (Oppenheim, 1992). The main purpose of a pilot study is to determine the best data collection tools that are intended to be used in the most difficult field conditions. A pilot study tests the draft survey to decide what form the final data collection tools should take (e.g. length of the interview or questionnaire and types of questions) (Robson, 1993). Pilot work can assist the actual wording of questions, but also such procedural matters as the ordering of the question sequences (Oppenheim, 1992). An attempt is made to recreate potential problems in miniature that might arise in the main survey and thereby make adjustments to them before the main fieldwork is carried out (Anderson and Arsenault, 1998).

This research carried out three questionnaire pilots and one observation pilot. The first questionnaire pilot was conducted in order to construct educational equality attitude statements, which was derived from the conceptual and exploratory educational equality framework. The following two questionnaire pilots investigated the most appropriate attitude measurement format. Finally, the observation pilot was conducted in order to investigate the validity of the observation categories and the extent to which they are associated to the expressed teachers' attitudes.

Questionnaire and observation design pilot studies.

The method employed for the design of the questionnaire and observation was a combination of qualitative and quantitative research methods. Qualitative research methods were employed in the first questionnaire pilot study and in the observation pilot study instead of a quantitative method (factor analysis). Quantitative research method was mainly employed in the second and third questionnaire pilot studies and

in the main survey. A combination of qualitative and quantitative research methods is not necessarily the best option when designing questionnaires and observations. However, it is argued in this research that the combination was the most appropriate method. More specifically, it was considered appropriate to use the qualitative approach in the design of the educational equality attitude statements instead of the quantitative approach (factor analysis).

The reasons are outlined:

- (1) The use of a first pilot study based on semi-structured attitude statements as a precursor to designing an attitude questionnaire strengthens the validity of the attitude statements (Schuman and Presser, 1981; Oppenheim, 1992).
- (2) Qualitative research methods are more appropriate at the first stage-pilot of a research because the researcher has not created pre-determined categories within closed-ended questions (Hammersley, 1989; Bryman, 1992),
- (3) Qualitative research methods can be used in a first pilot study to explore the research questions, which can be tested quantitatively. Therefore, the quantitative data derives from the quantification of the qualitative (Bullock et al., 1992),
- (4) Qualitative research methods are valuable in exploring the tacit knowledge (Polanyi, 1967, see Chapter I, section iv) that is involved in a complex and debatable domain like attitudes to educational equality and their association with classroom behaviour. Tacit knowledge provided evidence of the hidden meaning behind teachers' attitudes towards educational equality and their classroom behaviour (Hammersley, 2000), and
- (5) Qualitative research methods are more appropriate in emphasising the formation of hypotheses based on what factors are more likely to be found in a selected domain (Guilford, 1952). Qualitative research method emphasises the validity of attitude statements and observation categories. The validation of attitude scales and observation categories was based on context validity and subsequent investigation of empirical and predictive validity (Kerlinger and Kaya, 1959). Context validity was checked through qualitative analysis of teachers' answers and comments. Empirical and predictive validity were checked through qualitative analysis of observation categories and their association with

questionnaire attitude statements.

Table IV. iii: Overview of the pilot studies undertaken concerning the questionnaire and the observation.

Number and kind of pilot study	1 Questionnaire	2 Questionnaire	3 Questionnaire	4 Observation
Place and time taken	Athens, Greece Spring 1996.	Samos, Greece Autumn 1996.	Athens, Greece Winter 1997.	Athens, Greece Winter 1997.
Sample used	42 teachers (22 primary- 20 secondary).	80 teachers (38 primary- 42 secondary).	65 teachers (35 primary- 30 secondary).	21 teachers (12 primary- 9 secondary).
Main purpose	1. Explore the conceptual educational equality framework. 2. Create questionnaire statements.	1. Examine attitudes towards the fair egalitarian and liberal egalitarian models of educational equality. 2. Trial of questions including agree and disagree scale method.	1. Examine attitudes towards the fair egalitarian, strict egalitarian and liberal models of educational equality. 2. Trial of questions offering different educational equality options.	Examine use of observation categories.
Measurement format used	Semi-structured (closed and open answers included in each question).	Structured (agreement-disagreement attitude measurement scale).	Structured (the three educational equality models were included as options in each question).	Structured and unstructured observation categories.
Evaluation	Qualitative analysis of teachers' answers and notes.	1. Quantitative analysis of teachers' answers. 2. Qualitative analysis of teachers' notes.	1. Quantitative analysis of teachers' answers. 2. Qualitative analysis of teachers' notes.	Qualitative analysis of teachers-pupils interactions.
Conclusions	1. Create questions directly and indirectly related to educational equality 2. Qualitative questionnaire statements' analysis was more appropriate than quantitative analysis (factor analysis).	1. Notable inconsistent answers to questions related to educational equality. 2. Indicates need to use questions offering response options (for different equality models)	1. The majority of teachers' answers did not support the liberal egalitarian educational equality model. 2. Combined options responses favoured questions indirectly related to equality. 3. Liberal egalitarian option and combined option response option not used in final questionnaire.	Observation categories were defined and associated with relevant educational equality questions.

a. First questionnaire pilot study.

The aim of this research was to investigate Greek primary and secondary teachers' attitudes towards educational equality. The first step was to construct a conceptual educational equality framework, which could be used for further exploration. The construction of the conceptual and exploratory framework was based on the models of educational equality, differentiation to education and some of the teachers' options that affect their attitudes towards educational equality and pupils with difficulties, as outlined in Chapter I and Chapter II, section iii.

Table IV. iii. a: Educational equality conceptual and exploratory framework.

Questions directly related to educational equality	Liberal egalitarian model of educational equality	Fair inequalitarian model of educational equality	Strict egalitarian model of educational equality
Differentiation to education	Differentiate towards pupils without difficulties	Differentiate towards pupils with difficulties	Same teaching for pupils with and without difficulties
Seating arrangements and educational outcome questions and questions indirectly related to educational equality	Liberal egalitarian model of educational equality	Strict egalitarian and fair inequalitarian models of educational equality	
Seating arrangements	Separate pupils	Mix-up pupils	
Educational outcome	Leave differences between pupils	Reduce differences between pupils	
Use of competition in classroom	Positive attitude towards use of competition	Negative attitude towards use of competition (use of co-operation)	
Use of special education	Use of special schools	Use of special education inside ordinary schools	
School aims	Emphasis on pupils' academic achievement	Emphasis on pupils' social development	
Use of marking	Positive attitudes towards marking (Marking encourages pupils)	Negative attitudes towards marking (Marking discourages pupils)	

The conceptual educational equality framework given above included questions directly and indirectly related to educational equality. The questions directly related to educational equality are those that refer to differentiation of pupils with and without difficulties. A focus on either of the two kinds of pupils indicates a favouring of the liberal egalitarian or the fair inequalitarian model of educational equality. A preference for the strict egalitarian model of educational equality is indicated when there is no evidence of teachers differentiating between any kind of pupils and therefore teachers show the same attention towards both pupils with and without difficulties. The educational outcome and seating arrangement questions are directly related to educational equality, but they differentiate between the liberal strict egalitarian and the fair inequalitarian and strict egalitarian models of educational equality. Questions indirectly related to educational equality do not refer to pupils with and without difficulties, but appear to affect teachers' attitudes towards educational equality (see Chapter II, section iii). The indirect questions differentiate between the liberal egalitarian, the fair inequalitarian and the strict egalitarian models of educational equality as do the questions relating to educational outcome and seating arrangements.

The purpose of the first questionnaire pilot study was to explore and analyse, based on a qualitative basis, the conceptual educational equality framework. In order to do so, a questionnaire was designed that included open and closed questions. Some

questions were adapted from a teachers' questionnaire created by Bennett (1976) for a primary school project. These questions concerned seating arrangements, classroom organisation, organising the curriculum, testing and marking, discipline, teaching aims, opinions about education issues and opinions about teaching methods. Teachers' responses and comments were also integrated into the questionnaire design. The first pilot study was undertaken in Greece during Spring 1996. The sample included three primary and four secondary schools randomly selected from an area North east of Athens city centre. The total number of participants was forty-two teachers, twenty-two primary and twenty secondary.

Questions of questionnaire one covered and expanded the conceptual educational equality framework. The questions were divided into four section. The first section dealt with seating arrangements (analysed in six relevant questions, from one to six), discipline (analysed in eight relevant questions from seven to eleven and from twenty to twenty two), task assignment (analysed in two relevant questions from twelve to thirteen), homework (analysed in three relevant questions from fourteen to sixteen), marking (analysed in six relevant questions from seventeen to nineteen and from twenty seven to twenty nine), and rewards (analysed in four relevant questions from twenty three to twenty six). The second section considered the use of competition and co-operation (analysed in eleven relevant questions from one to eleven). The third section dealt with the use of special education (analysed in eight relevant questions from one to eight). The fourth section considered the causes for pupils' difficulties (analysed in two relevant questions from one to two), teaching approaches (analysed in two relevant questions from three to four), school aims [analysed in three relevant questions from five to seven (question five included twelve sub-questions; question six included twelve sub-questions; and question seven included nine sub-questions)], educational opportunity (analysed in two relevant questions from eight to nine) and educational outcome (analysed in one question, the ten).

For example, one of the six relevant questions covering seating arrangements is as follows:

'How do your pupils sit in the classroom? Tick the answer nearest your own view.

- a. Pupils without difficulties sit separately
- b. Pupils with difficulties sit separately
- c. Pupils with and without difficulties sit mixed-up
- d. Other' (please describe)

The content of Questionnaire one is provided in the appendix (pp. 375-383).

The feedback taken from teachers' answers and comments enabled the researcher to:

- (a) Explore the issue of differentiation to education and create four additional questions that deal with differentiation to education through educational opportunity, pupils' homework, assigning tasks and discipline.

Table IV. iii. a. (a). Educational opportunity, pupils' homework, assign task and discipline questions' format.

Questions	Liberal egalitarian model of educational equality	Fair inegalitarian model of educational equality	Strict egalitarian model of educational equality
Educational opportunity (derived from two relevant questions)	More opportunities to pupils without difficulties.	More opportunities to pupils with difficulties.	Same opportunities to all pupils.
Pupils' homework (derived from two relevant questions)	Different homework to pupils without difficulties.	Different homework to pupils with difficulties.	Same homework to all pupils.
Assigning tasks (derived from two relevant questions)	More tasks to pupils without difficulties.	More tasks to pupils with difficulties.	Equal amount of tasks to all pupils.
Discipline (derived from eight relevant questions)	Discipline less pupils without difficulties.	Discipline less pupils with difficulties.	Discipline all pupils the same.

These questions were included in the questions as directly related to educational equality.

- (b) Include three additional questions, which are not directly related to educational equality, although there is no evidence to disassociate them from educational equality, which emerged from teachers' comments during the pilot study of the questionnaire.

The first question related to teaching approaches; what kind of teaching approaches do teachers apply in the classroom? Is it the individualistic or the whole class

teaching approach? Both individual pupils and the class as a whole are important and both need to be maintained in the classroom (see Introduction, section i). That fact that pupils can act as individuals but also as part of the class and could be contradictory and filled with tension for teachers. Therefore, it is necessary to investigate whether Greek teachers favour individualistic or whole class teaching.

The second question deals with possible causes for pupils' difficulties. As mentioned in Chapter II, section i. a. (b), there is no agreement over what factors are more likely to cause pupils' difficulties. It is argued that it would be interesting to investigate what Greek teachers think about possible factors that may cause pupils' difficulties. The question concentrates on the possible environmental causes for pupils' difficulties and categorises them into two broad categories: pupils' home and family and pupils' school.

The third question concerns teachers' rewards in the classroom: do teachers reward more pupils' effort or performance? Do teachers focus more on pupils' effort to accomplish something, or do they focus mainly on their performance, ignoring pupils' effort to perform adequately? As mentioned in Chapter II, section ii. a, research has mainly focused on whether teachers praise pupils' academic or social responses, and whether more attention is given to pupils with and without difficulties. Therefore, it would be helpful to investigate the extent to which Greek teachers praise pupils' effort or performance.

Table IV. iii. a. (b). Teaching approaches, environmental causes for pupils' difficulties and teachers' praise questions' format.

Questions	Options		
Teaching approaches (derived from two relevant questions)	Focus on whole class teaching approach	Focus on individual teaching approach	Focus on both teaching approaches
Environmental causes for pupils' difficulties (derived from two relevant questions)	Family and home is more responsible for pupils' difficulties	School is more responsible for pupils' difficulties	Both family and home and school are responsible for pupils' difficulties
Teachers' rewards (derived from four relevant questions)	Teachers focus more on pupils' performance	Teachers focus more on pupils' effort	Teachers focus on both pupils' performance and effort

Though there is no research evidence to support that these questions are related to educational equality, they were used as additional indicators of teachers' attitudes towards educational equality and were included in the questions considered

indirectly related to educational equality.

(c) Construct the questions concerning seating arrangements, educational outcome, use of competition, use of special education, school aims and use of marking.

Table IV. iii. a. (c). Seating arrangements, educational outcome, use of competition, use of special education, school aims and use of marking questions' format.

Questions	Liberal egalitarian model of educational equality	Strict egalitarian and fair inequalities models of educational equality
Seating arrangements (derived from six relevant questions)	Separate pupils	Mix-up pupils
Educational outcome (derived from one relevant question)	Leave differences between pupils	Reduce differences between pupils
Use of competition in classroom (derived from eleven relevant questions)	Positive attitude towards use of competition	Negative attitude towards use of competition (use of co-operation)
Use of special education (derived from eight relevant questions)	Use of special schools	Use of special education inside ordinary schools
School aims (derived from three relevant questions, which cover a total of thirty three sub-questions)	Emphasis on pupils' academic achievement	Emphasis on pupils' social development
Use of marking (derived from six relevant questions)	Positive attitudes towards marking (Marking encourages pupils)	Negative attitudes towards marking (Marking discourages pupils)

Questions concerning the use of competition, use of special education, school aims and use of marking were included in the questions indirectly related to educational equality.

In summary, the first pilot study enabled the qualitative exploration of the conceptual educational equality framework and set two main categories of questions to be further explored. The first category included the questions directly related to educational equality (equality of educational opportunity and outcome, seating arrangements, discipline, homework and assign task). The second category included the questions indirectly related to educational equality (school aims, use of special education, use of competition in class, use of marking, teaching approaches, environmental causes for pupils' difficulties and rewards). As mentioned in the beginning of this section, a qualitative research approach for designing and constructing the educational equality attitude statements was employed instead of a quantitative approach (factor analysis) as it was argued that it was the most

appropriate because it ensured the context (internal) validity of the attitude statements.

The next section of this Chapter analyses the second and the third questionnaire pilot studies. Second and third questionnaire pilot studies investigated the following two questions: (1) what kind of attitude measurement should be employed? and (2) whether the questions directly related to educational equality should include the three models of educational equality or not? As mentioned in the section i. b. (a) of this Chapter, two distinct attitude questionnaire measurement methods were considered: the first includes an agreement and disagreement measurement scale and the second, a selection between two or more statements. In the first method, teachers are asked to state the extent of their agreement and disagreement to a given statement. In the second method, teachers are asked to state which of the given statements they agree with the most. As mentioned in Chapter I, three models of educational equality have been identified; the liberal egalitarian, the fair inequalitarian and the strict egalitarian model. The second questionnaire pilot investigated the possibility of using a measurement scale of agreement and disagreement to the statements that covered the liberal egalitarian and the fair inequalitarian model of educational equality. The third questionnaire pilot investigated the possibility of using a scale of three statements, asking teachers to choose the one they preferred the most. The questionnaire related to the three models of educational equality.

The following section analyses the second questionnaire pilot study.

b. Second questionnaire pilot study.

The format of questionnaire two was set so that each question directly related to educational equality included two sub-questions, one of which refers to the liberal egalitarian model of educational equality and the other refers to the fair inequalitarian model of educational equality. An agreement and disagreement measurement scale was employed.

For example, the question concerning equality of educational opportunity was as follows:

'Teachers can help the full diversity of the class, or help either pupils without difficulties or pupils with difficulties.

To what extent do you agree with these statements:

a. Teachers can help full diversity in the class, with special emphasis given to pupils without difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't Know

b. Teachers can help full diversity in the class, with special emphasis given to pupils with difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't Know'

The content of the questionnaire two is provided in the appendix (pp. 384-386).

Questionnaire two was piloted in Greece in September 1996 and a sample of eighty schoolteachers (thirty-eight primary and forty-two secondary teachers) were randomly selected from the Samos island, east of Athens. Teachers' answers were placed into three groups: the first one included teachers' answers that favoured the liberal egalitarian model of educational equality, the second one included teachers' answers that favoured the fair inegalitarian and strict egalitarian models of educational equality and the third one included teachers' answers that indicated inconsistency (favouring neither model of educational equality consistently).

Table IV. iii. b: Teachers' answers, frequencies and percentages in pilot study two of questionnaire two.

Question	<i>Liberal egalitarian model of educational equality</i>	<i>Strict egalitarian and fair inegalitarian models of educational equality</i>	<i>Inconsistent</i>
Seating arrangements	Separate pupils 12 (15.1%)	Mix-up pupils 61 (76.1%)	7 (8.8%)
Educational outcome	Leave differences between pupils 52 (65%)	Reduce differences between pupils 19 (23.7%)	9 (11.3%)
<i>Questions directly related to educational equality</i>	<i>Liberal egalitarian model of educational equality</i>	<i>Strict egalitarian and fair inegalitarian models of educational equality</i>	<i>Inconsistent</i>
Educational opportunity	More educational opportunity to pupils without difficulties 7 (8.8%)	More educational opportunity to pupils with difficulties 61 (76.2%)	12 (15%)
Pupils' homework	Different to pupils without difficulties 12 (15%)	Different to pupils with difficulties 47 (58.7%)	21 (26.3%)
Assign task	Assign more tasks to pupils without difficulties 10 (12.5%)	Assign more tasks to pupils with difficulties 25 (31.2%)	45 (56.3%)
Discipline	Discipline less pupils without difficulties 3 (3.8%)	Discipline less pupils with difficulties 37 (46.2%)	40 (50%)

<i>Questions indirectly related to educational equality</i>	<i>Liberal egalitarian model of educational equality</i>	<i>Strict egalitarian and fair inequalities models of educational equality</i>	<i>Inconsistent</i>
Use of competition	Positive attitudes towards the use of competition 3 (3.8%)	Negative attitudes towards the use of competition (use of co-operation) 69 (86.1%)	8(10.1%)
Use of special education	Use of special schools 22 (27.5%)	Use of special education Inside ordinary schools 43 (53.7 %)	15 (18.8%)
School aims	Emphasis on pupils' academic achievement 15 (18.8%)	Emphasis on pupils' social development 46 (57.4%)	19 (23.8%)
Use of marking	Positive attitudes towards marking (Marking encourage) 11(13.8%)	Negative attitudes towards marking (Marking discourage) 28 (35%)	41 (51.2%)
Questions	Options		
Teaching approaches	Focus on whole class teaching 39 (48.7%)	Focus on individual teaching 27 (33.8%)	Inconsistent 14(17.5%)
Environmental causes for pupils' difficulties	Family/home is more responsible for pupils' difficulties 41 (51.1%)	School is more responsible for pupils' difficulties 11(13.8%)	Inconsistent 28 (35.1%)
Teachers' rewards	Teachers focus more on pupils' performance 10 (12.5%)	Teachers focus more on pupils' effort 35 (43.7%)	Inconsistent 35 (43.8%)

The analysis of the second questionnaire pilot study showed that:

(a) teachers were in favour of the liberal egalitarian model of educational equality, with regards to educational outcome. Teachers were in favour of the strict egalitarian and fair inequalities models of educational equality with regards to seating arrangements.

(b) with regards to the questions directly related to educational equality, concerning educational opportunity and pupils' homework, the majority of teachers were in favour of the fair inequalities model of educational equality. The question about discipline resulted in teachers' answers being almost equally divided between inconsistent and favouring the fair inequalities model of educational equality. To the question on assigning task to pupils, the majority of teachers indicated an inconsistency response.

(c) with regards to the questions that were indirectly related to educational equality, the majority of teachers supported the strict egalitarian and fair inequalities models of educational equality. Teachers' answers to the use of marking showed that the majority of teachers were inconsistent in their answers.

(d) with regards to teaching approaches, the majority of the teachers favoured whole class teaching. Answers to the questions about the environmental causes of pupils' difficulties showed that the majority of teachers believed that pupils' home environment was more responsible for their difficulties. Concerning teachers' rewards, teachers' answers were almost equally divided between being inconsistent and being in favour of rewarding pupils' effort.

The main findings of the second questionnaire pilot study were:

(a) concerning the measurement scale of attitudes, teachers' answers indicated a range of inconsistency, varying from 10% at the lowest to 56.3% at the highest. Teachers' answers in some questions (especially the ones that deal with discipline, assigning task, rewards and marking) were inconsistent, which might indicate a tendency to choose both options (e. g. criticise less pupils with and without difficulties). Responses to other questions (especially the ones that deal with educational outcome and opportunity and seating arrangements) were straightforward, indicating a tendency to choose one option only (e. g. give more emphasis on educational opportunity to pupils with difficulties).

(b) in the use of the educational equality models, teachers has a tendency to neglect the liberal egalitarian model of educational equality while favouring the fair inegalitarian and strict egalitarian models of educational equality (for questions directly and indirectly related to educational equality respectively).

These findings have two implications. (1) that the agreement and disagreement measurement scale of attitudes is associated to a certain degree with a range of inconsistent answers. Therefore there is a need for an alternative measurement scale that elicits more consistent answers. (2) that the questionnaire of pilot study two illustrated a notable degree of inconsistencies in responses to statements included in questions related to educational equality. This might be caused by respondents being asked to make fine-grained evaluations of each educational equality question that includes relevant statements. This indicates that measuring

teachers' attitudes to educational equality by separate evaluations of relevant educational equality statements is not an appropriate way of measurement. Therefore, it was necessary to develop a method of measuring attitudes, which poses the options for each educational equality statement to teachers. Thus the next questionnaire pilot study aimed to use questions, each one including three options.

c. Third questionnaire pilot study.

As mentioned above, questionnaire three used an attitude measurement format, which included a number of options to choose one from. Questions directly related to educational equality included three options, each one referred to the strict egalitarian, fair inegalitarian and liberal egalitarian model of educational equality. The questions about seating arrangements and educational outcome included two options respectively referring to the liberal egalitarian, the strict egalitarian and the fair inegalitarian models of educational equality. Questions indirectly related to educational equality included three options. The first option referred to the liberal egalitarian model of educational equality, the second to the strict egalitarian and fair inegalitarian model and the third to a combined model of both models. The questions concerning teaching approaches, environmental causes for pupils' difficulties and teachers' rewards included three options, the third of which referred to a combination of the two models as above.

For example, the question concerning educational opportunity was as follows:

'Here are three positions about educational opportunities. Tick the answer nearest your own view:

- a. Teachers can help the full diversity in the class, but it is more important special emphasis be given to pupils without difficulties.
- b. Teachers can help the full diversity in the class, but it is more important special emphasis be given to pupils with difficulties.
- c. It is more important that teachers give special emphasis on both pupils with and without difficulties.'

The content of Questionnaire three is provided in the appendix (pp. 387-388).

Questionnaire three was piloted in Greece from January 1997 to April 1997 and involved sixty five teachers, thirty five primary and thirty secondary school teachers

from four primary and three secondary schools randomly selected from an area north east of Athens city centre.

Table IV. iii. c: Percentages of teachers' answers to questionnaire three.

Question	Liberal egalitarian model of educational equality		Strict egalitarian and fair inegalitarian models of educational equality
Seating arrangements	Separate pupils 10%		Mix-up pupils 90%
Educational outcome	Leave differences between pupils 30%		Reduce differences between pupils 70%
Questions directly related to educational equality	Liberal egalitarian model of educational equality	Fair inegalitarian model of educational equality	Strict egalitarian model of educational equality
Educational opportunity	More educational opportunity to pupils without difficulties 8%	More educational opportunity to pupils with difficulties 30%	Equal educational opportunity to all pupils 62%
Pupils' homework	Different homework to pupils without difficulties 3%	Different homework to pupils with difficulties 33%	Same homework to all pupils 63%
Assign task	Assign more tasks to pupils without difficulties 2%	Assign more tasks to pupils with difficulties task 26%	Assign equal tasks to all pupils 72%
Discipline rules	Discipline less pupils without difficulties 0%	Discipline less pupils with difficulties 23%	Discipline less all pupils 77%
Questions indirectly related to educational equality	Liberal egalitarian model of educational equality	Strict egalitarian and fair inegalitarian models of educational equality	Both
Use of competition	Positive attitudes to competition 0%	Negative attitudes to competition (use of co-operation) 41%	59%
Use of special education	Use of special schools 7%	Use of special education inside ordinary schools 54%	38%
School aims	Emphasis on pupils' academic achievement 5%	Emphasis on pupils' social development 17%	78%
Use of marking	Positive attitudes towards marking (Marking motivates) 26%	Positive attitudes towards marking (Marking discourages) 5%	69%
Questions	Options		
Teaching approaches	Emphasis on whole class teaching 25%	Emphasis on individual teaching 3%	Both 72%
Environmental causes for pupils' difficulties	School is more responsible for pupils' difficulties 3%	Home is more responsible for pupils' difficulties 56%	Both 41%
Teachers' rewards	Teachers focus more on pupils' effort 34%	Teachers focus more on pupils' performance 6%	Both 59%

The results of the third questionnaire pilot study indicated that:

(a) with regards to educational outcome and seating arrangements, the majority of

teachers believed that it is important to reduce pupils' differences and mix-up pupils. This reflects a positive stance towards the models of strict egalitarian and fair inegalitarian equality.

(b) with regards to the questions directly related to educational equality, the majority of teachers favoured the model of strict egalitarian educational equality and a significant number of teachers favoured the model of fair inegalitarian educational equality. The liberal egalitarian model of educational equality was ignored.

(c) with regards to the questions indirectly related to educational equality, the majority of teachers preferred the combined - 'both' - option. Most of the teachers believed that both co-operation and competition are important (with a considerable number of teachers believing that co-operation is more important and therefore indicating a positive attitude towards the strict egalitarian and fair inegalitarian models of educational equality). Teachers also indicated that both pupils' academic achievement and social development are important, that marking effects are both encouraging and discouraging (with a considerable number of teachers believing that encouraging effects of marking are more possible and therefore indicating a positive attitude towards the liberal egalitarian model of educational equality). Moreover, teachers believed that both individual and whole class teaching are important; that both rewarding pupils' effort and performance is important (with a considerable number of teachers believing that rewarding pupils' effort is more important).

(d) with regards to the use of special education, the majority of teachers believed that the use of ordinary schools is more important, therefore indicating a positive attitude towards the strict egalitarian and fair inegalitarian models of educational equality (with a considerable number of teachers believing that use of both ordinary and special schools is important). Towards the environmental causes for pupils' difficulties, the majority of teachers believed that pupils' family and home is more responsible for their difficulties (with a considerable number of teachers believing that both home and school are responsible for pupils' difficulties).

From the above findings we conclude that for questions directly related to educational equality the majority of teachers' answers were primarily concentrated on the strict egalitarian model of educational equality and secondly on the fair inegalitarian model of educational equality. The liberal egalitarian model of educational equality was ignored. For questions indirectly related to educational equality, the majority of teachers showed a tendency towards choosing the combined - 'both' - option. These conclusions lead to implications for the main survey as outlined in the section below.

d. Summary of questionnaire pilot work: implications for main survey.

The attitude questionnaire measurement format to be used in the main research included the following amendments:

(a) with regards to the questions directly related to educational equality (dealing with educational opportunity, pupils' homework, assign task and discipline rules), the liberal egalitarian option was not used leaving the strict egalitarian and fair inegalitarian options. The reason for dropping the liberal egalitarian model of educational equality was that teachers ignored it as it was 'not socially and educationally acceptable' and they were influenced by the teachers' group to support 'more socially and educationally accepted values' like the strict egalitarian and the fair inegalitarian models of educational equality.

(b) with regards to the questions indirectly related to educational equality, the combined - 'both' - option was not used. The reason for dropping the combined option was that teachers did not want to take a risk of supporting an 'extreme option', for example placing an emphasis on either pupils' social development or academic achievement. Instead, they tended to choose a more 'generally accepted' option, the combination of both options. Questions indirectly related to educational equality had two options that referred to the models of liberal egalitarian and strict egalitarian and fair inegalitarian models of educational equality (except the three questions of teaching approaches, environmental causes for pupils' difficulties and teachers' rewards).

The questionnaire used in the main research included two options for each question. Thus there was a consistent measurement format for all questions. For example, the question concerning school aims is as follows:

'Which of the following school aims do you think is more important for pupils' development? Tick the answer nearest your own view:

- a. Pupils' academic achievement.
- b. Pupils' social development.'

The final format of the questionnaire that was used in the main research is given in the fourth section of this chapter, which includes the description of the questionnaire used in the main research. The next section describes the observation pilot study.

e. Alternative methods for questionnaire design.

(a) Use of factor analysis.

Factor analysis could have been used in the first questionnaire pilot study in the construction of educational equality attitude statements [see Chapter IV, section iv. (a)]. Factor analysis could have enabled the researcher to identify underlying factors that explain the associations between the attitude statements used. Furthermore, factor analysis could have summarised the attitude statements with a relatively small number of factors. For example, instead of using a qualitative analysis for exploring the aspect of differentiation to education, factor analysis could have identified the educational differentiation underlying factors. However, it was argued that a qualitative research method for constructing the attitude statements was more appropriate than a quantitative method because it ensures the internal validity of the data collection tools (see Chapter IV, section ii, a).

(b) Use of semi-structured interviews.

Questionnaires are generally over-used in research, and since the classroom observer is present with the teacher concerned, it is sometimes better to use a structured interview schedule on the spot, rather than leave a questionnaire behind

(Wragg, 1994). However, questionnaires can be useful in surveying large numbers of teachers about their attitudes (Bennett, 1976). While it is undoubtedly true that interviews are better than structured questionnaires at reflecting the views of individual teachers, it does not follow that they are better for studying the teaching profession as a whole. According to Kelly et al. (1985),

“it is ... valid for any individual teacher ... to say, ‘that’s not how it is for me’. But the task of mapping individual experiences belongs to the biographer.”

(p. 104)

Another advantage of questionnaires over interviews is that they can be answered anonymously (Anderson and Arsenault, 1998). This is important in encouraging teachers to provide candid views on what happens in their classrooms or in the whole school (McCormick, 1986). This research aimed to map out the average teachers’ attitudes and for this, a questionnaire - especially a structured questionnaire - was considered to be most effective.

(c) Use of unstructured questionnaires.

Questionnaires can be reasonably structured. A completely unstructured questionnaire might be an invitation to teachers to write any comment on a lesson, or lessons over a term or year (McCormick, 1986). An unstructured questionnaire may be easy to design, but it is difficult and time consuming to analyse. It is essential to consider how the questionnaire will be analysed during its design (McCormick, 1986). On the other hand, pre-coded or closed questions are easy to analyse but the accuracy or honesty of people’s responses may be suspect and the quality of brief responses may be poor (Robson, 1993). In the first stages of designing the questionnaire used in this research both open and closed questions were used and this provided an opportunity to teachers to write their comments and give comments about specific questions or about the questionnaire characteristics in general. Answers to open questions and comments were put to specific categories and used in later stages.

f. Observation pilot study.

The observation used in this research uses structured observation categories, which correspond to some of the questionnaire statements. The aim of the observation pilot is to investigate the validity of the structured observation categories to be used in the main research.

There have been some observation studies where different observation categories were used depending on the nature of the study. The categories are structured according to what the observer is interested in. For example, Morrison and McIntyre (1969) refer to Flanders who created categories of teacher behaviour that when applied by an observer of the events in the classroom within a certain period of time, enters a tally in the category that best represents the observed events and then repeats the procedure for a succession of such periods. A category defined as 'teacher praises or encourages' is described as

"praises or encourages student action or behaviour. Jokes that release tension, not at the expense of another individual. Nodding head or saying 'um hm' or 'go on' are included."
(p. 30)

Madsen et al. (1968) constructed observation coding for pupils' and teachers' behaviour. The observer rates pupils' behaviour in terms of inappropriate behaviour (gross motor, object noise, disturbance of other's property, contact with other pupils, verbalisation, turning around, other inappropriate behaviour, mouthing objects and isolated play) and appropriate behaviour (pupil concentrates on task, answers questions, listens, raises hand and works on assignment). Teachers' behaviour is dependent on pupils' behaviour. According to Madsen et al. (1968),

"the teacher's rules for classroom behaviour must be considered when judging whether the child's behaviour is appropriate or inappropriate."
(p. 70)

For example, teacher approval following appropriate pupil behaviour includes

contact (embracing, kissing and holding arm or hand), praise (verbal comments indicating approval or commendation and facial attention and smiling at the child). Teacher disapproval following inappropriate pupil behaviour includes holding the pupil (putting child out in the hall, grabbing, hitting and shaking the pupil), criticism (critical comments of high or low intensity, yelling, scolding and raising noise), threats (consequences mentioned by the teacher to be used at a later time) and facial attention (frowning and grimacing at a pupil).

Good and Brophy (1972) refer to an observation category concerning the teacher's feedback to his or her pupils. According to Good and Brophy, feedback can be coded into process and product. Process feedback is coded when the teacher reviews or explains the steps involved in the pupil's approach of reaching the correct solution or response. Product feedback is coded when the teacher gives the correct answer, but does not explain the process. Process feedback is associated with positive teacher behaviour, whereas product feedback is associated with negative teacher behaviour.

White (1975) developed an observation schedule known as TAD (Teacher Approval and Disapproval Observation Record). Teacher approval was defined as

"a verbal praise or encouragement"
(p. 368)

and teacher disapproval as

"a verbal criticism, reproach, or a statement that the student's behaviour should change from what was unacceptable to acceptable to the teacher"
(p. 368)

Persons and Brassell (1976) constructed two categories of teacher behaviour: positive and negative. Each one consists of specific classroom events that occur between teacher and pupil that are recorded as positive and negative according to the situation. In positive events teachers' verbal praise, granting privileges, positive physical contacts and giving tokens are included; in negative events teachers' verbal

criticism or sarcasm, withdrawing privileges, isolation and aversive physical contact are included.

Russell and Lin (1977) defined approval teachers' responses as

"contact, praise, facial attention, and academic recognition"
(p. 151)

and disapproval teachers' responses as

"criticism, threats, facial attention, ignoring the child, sending the child out of the room and punishment"
(p. 150)

Russell and Lin (1977) were the first to include non-verbal responses to the operational definition of teachers' approval and disapproval responses.

Fry (1983) defined teachers' positive affect as behaviours that show support or positive regard for students and their behaviour, this includes smiling, joking, reinforcement and praise. Teachers' negative affect was defined as verbal or non-verbal behaviours reflecting hostility or negative feelings of the teacher, including negative teacher evaluation of student behaviour, and expressing anger or criticism.

Nafpaktis et al. (1985) made a distinction between teachers' appropriate approval and inappropriate approval. Teachers' appropriate approval was defined as approval following student on-task behaviour and inappropriate behaviour as following student off-task behaviour.

Merrett and Wheldall (1986) constructed a behavioural observation schedule (OPTIC) that selected data on key teacher and pupil behaviours related to classroom management. Their emphasis was on teachers' use of approval and disapproval of pupils' social and academic behaviour. The focuses on positive and negative teacher responses to pupils' on and off task behaviour. Teacher behaviour that could be recorded as positive includes verbal praise, gestures like nodding

encouragingly, smiling, giving the thumbs up sign, physical contact like placing a hand on the shoulder, the granting of privileges and the giving of tokens. Teacher behaviour that could be recorded as negative includes verbal criticism, reprimands, the pointing out of failure, error or general disapproval, gesture responses like frowning or glaring, aversive contact involving shaking or smacking, withdrawal of privileges and isolation from the rest of the group.

Considering the observation categories mentioned above, most refer to specific classroom situations in which a teacher's behaviour is analysed through different kinds of interactions with his or her pupils. These Interactions include positive and negative aspects of a teacher's behaviour. Positive aspects are praise, encouragement, positive physical contact, positive facial attention and granting privileges. Negative aspects are disapproval, criticism, negative physical contact, negative facial attention and criticism.

The aim of the observation pilot study was to examine the validity of the observation categories to be used in the main research for establishing associations with the relevant questionnaire statements. The observer focused on the interactions place between the teacher and the pupil. These interactions included teacher-individual pupil interaction (T-P.), teacher-pair of pupils' interaction (T-PP), teacher-group of pupils' interaction (T-GR) and teacher-whole class interaction (T-CL). Consequently, the focus was drawn to specific teacher behaviour that associate with relevant questionnaire statements. The specific teacher behaviours were the following: praise pupils' effort (PR. EF.), praise pupils' performance (PR. PE.), assign a task to pupils (ASS.) and criticise pupils (CRI.). Praise effort and performance and assign task are included in teacher's positive behaviour, whereas criticise is included in teacher' negative behaviour, as were defined from the observation categories described above (Madsen et al. 1968, Flanders, 1969, White, 1975, Persons and Brassell, 1976, Russell and Lin, 1977, Fry, 1983, Nafpaktis, 1985 and Merrett and Wheldal, 1987). A structured observation schedule was used that included specific observation categories, which correspond to questionnaire statements as follows:

(a) T-P, in which interactions between teacher and pupil are coded and are associated to the question concerning educational opportunity.

(b) T-CL, in which interactions between teacher and class are coded and it is associated to the question concerning teaching approaches.

(c) PR. EF. and (d) PR. PE, in which the teacher's praising of a pupil's effort and performance is coded and they are associated to the question concerning teachers' praise.

(e) CRI., in which teacher's disciplining a pupil is coded and it associated to the question concerning discipline.

(f) ASS., in which teacher's assigning a task to pupils is coded and it is associated to the question concerning assign task.

Qualitative data was also gathered from the observer's impressions of classroom aspects that could not fit in the specific observation categories. This data enriched the validity of the observation categories. The observation schedule was designed to be as simple and practical as possible. Aspects of the questionnaire that were observable either by definition or for practical reasons were considered. Two conclusions can be drawn on the basis of this pilot procedure:

(a) questions concerning educational outcome, pupils' homework, use of competition, use of special education, school aims, use of marking and environmental causes for pupils' difficulties cannot be readily observed because they are too abstract and include activities outside the class.

(b) questions concerning seating arrangements, educational opportunity, assign task, discipline rules, teaching approaches and teachers' rewards could be observed because they include specific activities that take place within the classroom.

Analytically:

(1) question concerning seating arrangements could be observed by looking at whether and to what extent pupils with difficulties sat separately or mixed in the classroom.

(2) question concerning educational opportunity could be observed by focusing on interactions between the teacher and pupils with and without difficulties.

(3) question concerning discipline rules deals with situations in which the teacher criticises pupils because they are disturbing the class by either talking without permission or causing trouble. Teacher behaviour that should be recorded as criticising pupils, as identified by White (1975), Russell and Lin (1977) and Merrett and Wheldall (1987), includes verbal criticism, reprimands, the pointing out of failure, error or general disapproval, gesture responses like frowning or glaring, aversive contact involving shaking or smacking, withdrawal of privileges and isolation from the rest of the group.

(4) question concerning the assigning of tasks deals with situations in which the teacher assigns a special task to a pupil or pupils. Task refers to certain responsibilities that some pupils undertake and pupils' dealing with activities during the lesson. A pupil, for example, may be assigned by his or her teacher to write something on the blackboard, read loud from the text and bring teaching instruments in the classroom.

(5) question concerning the teaching approaches deals with the amount of interaction that takes place inside the classroom between the teacher and one pupil, two pupils, a group of pupils and the whole class.

(6) question concerning the teachers' rewards deals with teacher's praise of pupils' effort and performance. Signs of teacher's praise that were included, as described by Flanders, (1969), Persons and Brassell (1976) and Merrett and Wheldall, (1987), are verbal praise, gestures like nodding encouragingly, smiling, giving the thumbs up sign, physical contact like placing the hand on the shoulder, granting of privileges and giving of tokens. A distinction has to be between praising effort or praising performance when assessing teachers' praise. Praising pupils' effort includes gestures like nodding encouragingly, smiling, and giving the thumbs up sign and teachers' actions and words that show satisfaction from the pupils' effort. Praising

pupils' performance is a category in which teachers praise pupils' outcome and good performance. Any verbal comments indicating approving and focusing on pupils' achievement are included.

The observation schedule one - its content is provided in the appendix (pp. 393-394) - was piloted with questionnaire three in February to April 1997. The pilot observation study involved twenty one classes (twelve in primary and nine in secondary schools) randomly selected from the total number of teachers who completed the questionnaire. The procedure adopted was that teachers were first observed inside the classroom and then they completed the questionnaire. The observer was located in the classroom so as to see all the pupils. Usually the place was somewhere at the back of the pupils so they were not distracted by his presence. Each teacher was observed in the same classroom setting for three classroom hours of the same subject. The observation time was divided into two minutes intervals (from 0 to 2 minutes). The researcher observed the whole class using a classroom map containing all pupils' desks. Every pupil was located at a certain desk that was drawn on a classroom map, which the researcher used (description of the classroom map is provided in the appendix, p. 397). For example, pupil A1 refers to the pupil sitting on the A desk in place 1. Whenever there was interaction between that particular pupil and the teacher, the symbol 'A1' was written in the observation category T-P (teacher-one pupil interaction) and if that interaction could be placed in one of the remaining observation categories [praise pupils' effort (PR. EF.), praise pupils' performance (PR. PE.), criticise pupils (CRI.), and assign a task to pupils (ASS.)] or if it was something different (OTHER) the 'A1' was written again. After the completion of all the observations the researcher asked the teacher to identify the number of pupils with difficulties in his or her class and the desks where they sit. The researcher marked these desks on the classroom map. The teachers were asked to complete the questionnaire after the observation to prevent knowledge of the questionnaire content affecting usual teaching interactions.

The following table details the sample of pupils identified by their teachers as having difficulties.

Table IV. iii. f: Descriptive details of the sample of pupils used in this research identified by their teachers as having difficulties.

Number of classes in which pupils with difficulties were identified	48 (one teacher per classroom)
Pupils with difficulties' mean	4.3
Max.	10
Min.	2
Std.	1.7

The average percentage of pupils identified by their teachers as having difficulties was twenty per cent. In other words, it meant that the teachers identified around one in five pupils as having difficulties in class.

Sixty-three hours of observation in twelve primary and nine secondary school classes were completed. The purpose of the pilot observation study was to examine whether: firstly the observation schedule was practical enough to use in the classrooms, and secondly whether the observation categories reflected the questions of the questionnaire. A qualitative approach of the observation was employed because such an approach was the most suitable for establishing context (internal) and predictive validity of the observation categories used. That was established by focusing on classroom aspects, teachers' classroom behaviour, pupils' responses and other details that enabled to re-arrange the observation schedule and make the links between observation categories and attitude questionnaire statements more accurate. Conclusions from the pilot observation pilot study are summarised:

(a) the time interval of two minutes was too small for the observer to focus on teacher-pupil interactions. Many teacher-pupil interactions, within two minutes, could not fit into a category, whereas the teacher-class interactions were few. The reason being that, most of the time, the teacher did not have many opportunities to interact with the whole class within two minutes, but he or she could interact with individual pupils more within that same period. It was concluded that the time interval should be changed to five minutes to balance the amount of individual and class interactions.

(b) the teacher-pupil (T-P) interaction includes many kinds of interaction that take

place between pupil and teacher. It may be the case that a pupil takes the initiative to interact with the teacher (for example, to ask about something that he or she did not understand); or the teacher takes the initiative to interact with a pupil by asking him or her something concerning the lesson. It became apparent that there were cases that certain pupil-teacher interactions did not fit into any of the specified observation categories. For example, the teacher would just affirm a pupil's correct answer, without praising or criticising him or her. In that case, the interaction is recorded in the pupil-teacher category only.

(c) the teacher-pair of pupils (T-PP) interaction category was not used. The observer realised that interactions between the teacher and two pupils sitting at the same desk did not occur. The teacher would interact with the one pupil and then with the other but never with both simultaneously. The pair of pupils-teacher interactions was abandoned.

(d) the teacher-group of pupils (T-GR) interaction was seldomly used. In the majority of the classrooms groups of pupils were not found; teachers preferred to allocate pupils in rows. There were few classrooms (three out of twenty one were primary level) where pupils sat in-groups, but again most of the interactions that took place were among individual pupils and the teacher. There were few cases where the teacher interacted with one group as a whole (for example teacher instructing one group only and the rest of the groups stay inactive). It was concluded to abandon the group of pupils-teacher interaction.

(e) the teacher-class (T-CL) interaction meant that the teacher interacts with the whole class. He or she talks to all the pupils as a whole or the class as a whole interacts with the teacher. For example, a teacher could give some guidelines concerning schoolwork to the whole class, or the pupils could show the teacher that they understand his or her analysis on a certain teaching topic. The observer in these cases had to be sure about the type of interaction: the teacher was interacting with the whole class, not with a minority of pupils only. When this is the case, the observer puts a tick in the teacher-class category.

(f) the specific observation categories concerning teacher's praising pupils' effort/ performance, criticising pupils and assigning them a task (PR. EF., PR. PE., CRI. and ASS.) remain stable. The observer had to take immediate and rapid decisions about the type of the interactions taking place between pupil and teacher. The teacher could interact with a pupil many times within a single interaction and various interactions might take place. For example, a teacher could praise a pupil for his or her performance on a certain task, afterwards criticising him or her for saying something wrong and so on. Other times only one interaction could take place. For example, the teacher criticises a certain pupil and then draws his or her attention somewhere else.

(g) in the category of 'OTHER' qualitative information was gathered from the observer's impressions of classroom that did not fit in the specified observation categories. These comments and descriptions related to various teaching methods, teachers' instructions to pupils and pupils' activities in the classroom. The most interesting data however, had to do with teacher-pupil interactions. The observer realised that other types of teacher-pupil interactions were not included in the categories used in the observation. These interactions related to the amount and type of feedback given by the teachers to their pupils when the pupils were asked. There were situations in which a teacher did not praise pupils' effort or performance, criticise pupils, assign a task or just interact with the pupil by affirming his or her response. Yet in these particular situations the teacher was either giving positive or corrective feedback to the pupil. Positive feedback means that the teacher tries to help the pupil find the correct answer to his or her question by encouraging him or her or giving him or her some clues about the nature of the answer. Corrective feedback means that the teacher does not give enough time to the pupil to answer his or her question. In that case, the teacher just tells pupil the right answer, or asks another pupil for the answer to the question. Following from information concerning this particular teaching behaviour, it was decided that two more observation categories should be constructed: the teacher's positive feedback (P. FD.) and the teacher's corrective feedback (C. FD.). These two observation categories are associated with the categories Good and Brophy (1972) created and mentioned

above.

The final format of the observation schedule to be used in the main research is described in detail in the following section.

iv. Description of the data collection tools used in the main research

The pilot studies of the questionnaires and observations, described so far, enabled the researcher to develop the version of the questionnaire and observation schedule that would be used in the main research. The questionnaire and observation schedule are connected: some of the questionnaire statements are associated with the observation schedule observation categories. The questionnaire and observation schedule format to be used in the main research are described below.

a. Questionnaire used in the main research (Questionnaire four).

As mentioned in the third questionnaire pilot study, the questionnaire statements' format to be used in the main research included two options to be selected from. Teachers' feedback gathered during the third questionnaire pilot study and the observation schedule pilot study through informal discussions with the teachers resulted in the addition of two questions:

(a) a question concerning the observation category of corrective and positive feedback (C. FD , P. FD.) - which was constructed through the pilot observation study - was added. The statement had the following form:

'Teacher's responses to a pupil's half-correct answer can include saying the correct answer to the pupil and repeating the question in other words. Show your opinion by ticking the answer nearest your own view.

a. Both saying the correct answer to the pupil and repeating the question in other words are important, but saying the correct answer to the pupil is more important.

b. Both saying the correct answer to the pupil and repeating the question in other words are important, but repeating the question in other words is more important.'

The corrective feedback refers to option 'a' and the positive feedback to option 'b'.

The question regarding feedback is included in the group of questions indirectly related to educational equality.

(b) a question regarding the notion of 'educational respect' was added. 'Educational respect is associated with what was mentioned in Chapter I, section ii (p. 35) concerning the assumption that educational opportunities given to pupils should be of equal worth and that different needs of pupils should be equally respected - especially pupils with difficulties' needs (White, 1991; Howe, 1993). There was teachers' feedback concerning the notion of 'educational respect' in the third questionnaire pilot study that led to including a question relevant to 'educational respect'. The question included the following two options:

- '(a). All pupils deserve respect, equally distributed.
- (b). All pupils deserve respect, but pupils with difficulties deserve more respect as compensating for starting at a disadvantage.'

The question concerning educational respect is included in the group of questions directly related to educational equality. The first option refers to the strict egalitarian model of educational equality and the second option refers to the fair inegalitarian model of educational equality.

Also included were the factors that may influence teachers attitudes. These factors included teachers' gender, age, training, skill, specialised subject qualification, experience and type and region of the school. Research findings provided evidence that most of these factors may significantly influence teachers' attitudes (see Chapter II, ii, c). With regards to age and experience, teachers were asked to indicate the number of years and then the researcher placed them in various categories (for age, 'younger' teachers, between twenty to forty years old and 'older' teachers', over forty years old) and for experience, 'less experienced' teachers with one to ten teaching years of experience and 'more experienced teachers' with over ten years of teaching experience). With regards to teachers' training and specialised subject qualification, teachers were asked to state whether they had two or four years of training (academy or university training respectively) and to write down their expertise (for example, mathematician, philologist, etc.) so the researcher could

categorise them into humanities, maths and science and physical education teachers. The type of school included primary and secondary schools and the region included developed and less developed regions defined according to socio-economic criteria taken from the Greek Ministry of Education, Statistics Department.

To ensure that the teachers would provide reliable answers, that each question was divided into two sub-questions that asked the same question but with different wording. It was practically impossible to give the same questionnaires twice to the same teachers to check the consistency of their answers, therefore the researcher had to use anonymous questionnaires and the technique of sub-question was the best alternative. However, the researcher had to ensure that each sub-question was asking the same question. Thus the wording of the questions had to be examined and tested thoroughly. Feedback was given by colleagues', students' and teachers' remarks concerning the construction of each pair of questions. The pairs of questions were mixed-up in question sequence to conceal that there were questions asking similar things.

An example of two sub-questions concerning school aims are given below:

The first sub-question:

'School aims include pupils' academic achievement and social development. Show your opinion by ticking the answer nearest your own view.

(i) Pupils' academic achievement and social development are important, but pupils' academic achievement is more important.

(ii) Pupils' academic achievement and social development are important, but pupils' social development is more important.'

The second sub-question:

'School activities include academic and social activities. Tick the answer nearest your own view:

(i) Academic and social activities are important, but academic activities are more important.

(ii) Academic and social activities are equally important, but social activities are more important.'

Each pair of questions will be cross-tabulated and analysed for the statistic Kappa.

Questionnaire four's content is provided in the appendix (pp. 389-392).

In summary, the questionnaire to be used in the main research included the following questions:

(a) two questions directly related to educational equality that deal with seating arrangements and educational outcome, which measure teachers' attitudes towards the liberal egalitarian, the strict egalitarian and fair inegalitarian models of educational equality.

(b) five questions directly related to educational equality (educational opportunity, educational respect pupils' homework, assign task and discipline rules), which measure teachers' attitudes towards the strict egalitarian and the fair inegalitarian models of educational equality.

(c) four questions indirectly related to educational equality (school aims, use of special education, use of competition and use of marking), which measure teachers' attitudes towards the liberal egalitarian, the strict egalitarian and fair inegalitarian models of educational equality.

(d) four questions indirectly related to educational equality that deal with teaching approaches, environmental causes for pupils with difficulties, teachers' praise and teachers' feedback.

b. Observation used in the main research (observation schedule two).

Taking into consideration the pilot observation study, the changes were made, the observation schedule to be used in the main research (observation schedule two) included eight structured observation categories. Each category is associated to a questionnaire attitude statement as follows:

(a) T-P, in which interactions between teacher and pupil are coded and it is associated to the question concerning educational opportunity.

(b) T-CL, in which interactions between teacher and class are coded and it is associated to the question concerning teaching approaches.

(c) P. FD. and (d) C. FD. , in which positive and corrective teacher feedback to pupils is coded and they are associated to the question concerning teachers' feedback.

(e) PR. EF. and (f) PR. PE, in which the teacher's praising of a pupil's effort and performance is coded and they are associated to the question concerning teachers' praise.

(g) CRI., in which teacher's disciplining a pupil is coded and it associated to the question concerning discipline.

(h) ASS., in which teacher's assigning a task to pupils is coded and it is associated to the question concerning assign task.

Each observation category is distinct from the others. When a teacher-pupil interaction takes place, it can be recorded as one of the above categories or none of the above. There is stress on the difference between corrective feedback (C. FD.) and criticise (CRI.). Corrective feedback takes place when the teacher corrects the pupil in various ways, by telling him or her the correct answer, asking somebody else to answer the question and by not giving the pupil a sufficient amount of time to answer the question. Criticise refers to situations where the teacher disciplines the pupil and retain order in the class.

Table IV. iv. b: Summary of observation categories included in the observation schedule to be used in the main research and their associations to the corresponding questionnaire statements.

<i>Code</i>	<i>Label</i>	<i>Definition</i>	<i>Corresponding questionnaire statement</i>
<i>T-P</i>	Teacher-pupil interactions	Every interaction of teacher with one pupil	Teacher interacts more: with all pupils with pupils with difficulties
<i>T-CL</i>	Teacher-class interactions	Every interaction of teacher with the pupils as a whole	Teacher interacts more: with individual pupils with all pupils
<i>P. F.</i>	Teacher-pupil positive feedback interactions	Every interaction of teacher with one pupil in which teacher helps pupil to find the right answer	Teacher gives more positive feedback to pupils
<i>C. FD</i>	Teacher-pupil corrective feedback interactions	Every interaction of teacher with one pupil in which teacher does not help pupil to find the right answer	Teacher gives more corrective feedback to pupils
<i>PR. EF.</i>	Teacher-pupil praise effort interactions	Every interaction of teacher with one pupil in which teacher encourages pupil's effort to find the right answer	Teacher praises more pupil's effort
<i>PR. PE.</i>	Teacher-pupil praise performance interactions	Every interaction of teacher with one pupil in which teacher praises pupil's success in finding the right answer	Teacher praises more pupil's performance

CRI.	Teacher - pupil criticise interactions	Every interaction of teacher with one pupil in which teacher criticises pupil's inappropriate behaviour in class	Teacher: disciplines all pupils the same is tolerant to pupils with difficulties
ASS.	Teacher - pupil assign interactions	Every interaction of teacher with one pupil in which teacher assigns a task to a pupil	Teacher: assigns all pupils a task assigns more pupils with difficulties a task

Observation schedule two's content is provided in the appendix (pp. 395-396).

To ensure that the observation schedule was sufficiently reliable, that is, the type and amount of teacher-pupil interactions would not change from one teaching hour to another, each teacher was observed for three classroom hours in the same classroom teaching the same subject. For example, a teacher would be observed for three hours in the same classroom teaching mathematics. The amount and type of interactions made in each hour should be correlated and it was anticipated that similar results would be found without significant differences from one classroom hour to another. In other words, it was expected that the teacher's style in terms of interacting with his or her pupils would not change and that during the three hours of observation the teacher would be consistent in his or her behaviour in class. This provided the external reliability, or reliability over time, that was measured and analysed using the statistic spearman rho.

The reliability within the general teaching approach, the internal reliability, was also examined. In order to do so, six specific observation categories (positive feedback, corrective feedback, praise effort, praise performance, criticise and assign task) that made up the two categories of teacher's 'positive' and 'corrective' classroom behaviour were tested in terms of content. Teachers' 'positive' behaviour included positive feedback, praise effort, praise performance and assign task. Teachers' 'corrective' classroom behaviour included corrective feedback and criticise. To attain internal reliability meant that each of the two categories of 'positive' and 'corrective' teacher's classroom behaviour had to contain the relevant sub-observation categories. The researcher used the alpha measure of reliability, which correlates between the 'positive' and the 'corrective' sub-categories.

v. Research questions

The research questions investigate the following three aspects:

- a. Greek teachers' attitudes towards educational equality,
- b. Greek teachers' classroom behaviour, and
- c. Associations between Greek teachers' attitudes towards educational equality and their classroom behaviour.

a. Greek teachers' attitudes towards educational equality.

(a) Attitudes directly related to educational equality.

In relation to attitudes directly related to educational equality, do teachers give more emphasis on the strict egalitarian or to the fair inegalitarian models of educational outcome?

(1) equal opportunity for all or more opportunities to pupils with difficulties?

(2) equal respect for all or more respect to pupils with difficulties?

(3) same homework to all pupils or different homework to pupils?

(4) discipline all pupils or be tolerant to pupils with difficulties?

(5) assign tasks to all pupils or more to pupils with difficulties?

(b) In relation to educational outcome, do teachers give emphasis on reducing or leaving pupils' differences?

(c) In relation to seating arrangements, do teachers give emphasis on separating pupils with difficulties or mixing- up all pupils?

(d) In relation to teachers' attitudes indirectly related to educational equality, do teachers give emphasis on:

(1) pupils' academic achievement or social development?

- (2) whole class or individual teaching?
- (3) special education inside mainstream or special schools?
- (4) home or school as causes for pupils' difficulties?
- (5) use of competition or not?
- (6) positive or corrective feedback?
- (7) reward pupils' effort or performance?
- (8) the encouraging or discouraging effects of marking?

(e) What are the associations between teachers' attitudes directly and indirectly related to educational equality and their attitudes towards educational outcome and seating arrangements?

(f) What are the associations between teachers' attitudes directly and indirectly related to educational equality, their attitudes towards educational outcome and seating arrangements and background variables such as:

- (1) school region (developed and less developed regions)
- (2) school type (primary and secondary schools)
- (3) teachers' gender (male and female)
- (4) teachers' age ('younger' teachers, twenty one to forty years old and 'older' teachers, over forty years old)
- (5) teachers' experience ('less experienced' teachers, one to ten years of teaching experience and 'more experienced' teachers, over ten years of teaching experience)
- (6) teachers' training (academy and university training)
- (7) teachers' specialist subject qualification (humanities, maths and science and physical education)

b. Greek teachers' classroom behaviour.

What are the average levels of interactions between:

- (1) teacher and pupils with and without difficulties
- (2) teacher and pupils with and without difficulties in corrective feedback

- (3) teacher and pupils with and without difficulties in positive feedback
- (4) teacher and pupils with and without difficulties in praising effort
- (5) teacher and pupils with and without difficulties in praising performance
- (6) teacher and pupils with and without difficulties in criticising
- (7) teacher and pupils with and without difficulties in assigning a task

c. Associations between Greek teachers' attitudes and their classroom behaviour:

What are the associations between teachers' attitudes to teaching approaches, educational opportunity, feedback, rewards, discipline and task and their relevant classroom behaviour?

vi. Sample used in the research

a. Sample analysis.

The research took place in Greater Athens from October 1997 to April 1998. For practical reasons, it was decided that the region from where the sample is selected should be the Northern Greater Athens. The Northern regions of Greater Athens were selected according to socio-economic criteria taken from the Greek Ministry of Education, Statistics Department. The Northern Greater Athens' regions represented both developed and less developed regions. The developed regions were in the Northern East of Greater Athens and the less developed regions were in the Northern West of Greater Athens. Both primary and secondary schools were randomly selected from each region. From each school a randomly selected number of teachers were observed in their classrooms and then completed the questionnaire along with the teachers in the school who had not been observed.

Table IV. vi. a: Sample analysis.

<i>Greater Athens</i>	
<i>Northern Greater Athens</i>	
<i>Northern West Greater Athens region less developed regions</i>	<i>Northern East Greater Athens region developed regions</i>
<i>Less Developed schools</i>	<i>Developed schools</i>
<i>All teachers complete questionnaires</i>	

b. Sample summary.

The research was carried out in fourteen Athenian regions, seven were randomly selected from developed regions and seven were randomly selected from less developed regions. The total number of schools participating in the research was thirty-six, seventeen primary and nineteen secondary schools. Nine primary schools were randomly selected from developed regions and eight primary schools were randomly selected from less developed regions. Ten secondary schools were randomly selected from developed regions and nine secondary schools were randomly selected from less developed regions. The total number of teachers participating in the research was two hundred sixty, one hundred twenty nine primary and one hundred thirty one secondary teachers. One hundred and twenty three of them were teaching in developed regions (sixty-four primary and fifty-nine secondary teachers) and one hundred thirty seven were teaching in less developed regions (sixty-five primary and seventy-two secondary teachers). Forty-eight teachers were observed in their classrooms (twenty-four primary and twenty-four secondary teachers). Twelve primary teachers were teaching in developed regions and twelve were teaching in less developed regions. Twelve secondary teachers were teaching in developed regions and twelve were teaching in less developed regions.

Table IV. vi. b: Sample summary.

Total no. of regions	Schools	Teachers	Teachers observed
14 regions	36 schools 17 primary schools 19 secondary schools	260 teachers 129 primary teachers 131 secondary teachers	48 teachers 24 primary teachers 24 secondary teachers
7 developed regions	19 schools 9 primary schools 10 secondary schools	123 teachers 64 primary teachers 59 secondary teachers	24 teachers 12 primary teachers 12 secondary teachers
7 less developed regions	17 schools 8 primary schools 9 secondary schools	137 teachers 65 primary teachers 72 secondary teachers	24 teachers 12 primary teachers 12 secondary teachers

Conclusions

The main conclusions of this chapter are summarised:

(a) This research project followed the deductive research approach, because it developed a theory and applied it in practice. It conceptualised a theory about educational equality and teachers' theories in use and action, and operationalised the theory. In order to do so, the research was based on structured questionnaires and observations conducted in a representative sample of Greek teachers in order to generalise its findings. The methodology resulted in the main research's quantitative survey because it used quantitative data analysis. However, a combination of qualitative and quantitative research methods were employed during the questionnaire and observation pilot studies. It was argued that qualitative research methods were more appropriate than quantitative methods for exploring and constructing the attitude statements, which were based on the conceptual educational equality framework. Qualitative research methods ensured the context (internal) attitude questionnaire validity more than quantitative method (factor analysis). The quantitative approach was employed during the piloting of the attitude statements' measurement. Therefore, the external validity of the attitude statements was ensured. The observation pilot used the qualitative research method to ensure the context (internal) validity of the observation categories and explore the empirical and predictive validity of observation categories through their associations with relevant attitude statements. Having ensured the internal validity of the data collection tools, the quantitative survey aimed to standardise and generalise the results. The focus was drawn to data collection tools' reliability. The questionnaire's reliability was checked through external validity - by associating pairs of similar attitude statements - and internal reliability. The internal reliability of the questionnaire is concerned with associations between attitude statements and leads to external validity. The observation's reliability was checked through external reliability - reliability over classroom time intervals - and internal reliability. The internal reliability of the observation was concerned with associations between observation categories and leads to external validity.

(b) The type of questionnaire statements was dependent on what kind of measurement format was to be used. Two attitude measurement formats were considered: one, a scale of agreement and disagreement to questionnaire statements, and second, two or more options to choose from. The research underwent three attitude questionnaire pilot studies in order to construct the most appropriate measurement format. Pilot studies explored both formats and concluded that two options in each attitude statement was the final measurement format. The final attitude questionnaire used was structured and included two options-categories for each of its questions. The questions directly related to educational equality (dealing with educational opportunity, pupils' homework, assign task and discipline rules) did not use the liberal egalitarian option of educational equality, leaving the strict egalitarian and fair inegalitarian educational equality options. The questions indirectly related to educational equality did not use the combined - 'both' - option.

(c) The research used structured observations in order to examine teachers' classroom behaviour. The observations' format corresponded with the structured questionnaires' format. Observations included structured categories to be observed that were associated with some of the questionnaire statements, but also investigated other features of teacher-pupil interactions that needed to be thoroughly studied on a structured basis. This was accomplished through a pilot study during which the qualitative feedback from teachers' comments were used to enrich the structured observation categories. Alternative methods for the questionnaire design included use of factor analysis, semi-structured interviews and open-ended questionnaires.

(d) Structured questionnaires and observations were used in the main research in order to investigate the following three aspects:

- (1) Greek teachers' attitudes towards educational equality,
- (2) Greek teachers' classroom behaviour (involving teacher-pupil interactions), and
- (3) Associations between Greek teachers' attitudes towards educational equality and their classroom behaviour

By considering the above the research will enable an investigation of how Greek teachers interpret the three models of educational equality (liberal egalitarian, strict egalitarian and fair inegalitarian), if they combine in theory the three educational equality models, and finally how they translate these models into classroom behaviour.

CHAPTER V

Research Findings

Introduction

This chapter presents the research findings and consists of seven sections with the following contents:

- i. Sample description
- ii. Reliability of data collection tools
 - a. Questionnaire four reliability
 - b. Observation schedule two reliability
 - (a) Observation schedule two external reliability
 - (b) Observation schedule two internal reliability
- iii. Greek teachers' attitudes ¹ towards educational equality.
 - (a) Teachers' attitudes towards educational outcome.
 - (b) Teachers' attitudes towards seating arrangements.
 - (c) Teachers' attitudes directly related to educational equality.
 - (d) Teachers' attitudes indirectly related to educational equality.
- iv. Greek teachers' classroom behaviour. Average levels of interactions between:
 - (a) teacher and pupils with and without difficulties ².
 - (b) teacher and pupils with and without difficulties in corrective feedback.
 - (c) teacher and pupils with and without difficulties in positive feedback.

¹ As mentioned in section i. a. (a) of Chapter II (p. 59), this research defines the term 'attitude' as teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option.

² As mentioned in section i. a. (b) of Chapter II (p. 63-64), this research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream compulsory educational context. It is individual class and teacher based and excludes pupils with severe learning difficulties (in the UK pupils with severe learning difficulties are referred to as SLD - severe learning difficulties - or PMLD - profound and multiple learning difficulties).

- (d) teacher and pupils with and without difficulties in praising effort.
- (e) teacher and pupils with and without difficulties in praising performance.
- (f) teacher and pupils with and without difficulties in criticising.
- (g) teacher and pupils with and without difficulties in assigning a task.
- a. Quantitative analysis of teacher-pupils interactions.
- b. Qualitative discussion of teacher-pupils interactions.

v. Associations between Greek teachers' attitudes directly and indirectly related to educational equality, teachers' attitudes towards educational outcome, seating arrangements and their background variables such as:

- (a) school region (developed or less developed school regions).
- (b) school type (primary or secondary schools).
- (c) teachers' gender (male or female).
- (d) teachers' age ('younger' teachers, twenty to forty years old, and 'older' teachers, over forty years old).
- (e) teachers' experience ('less experienced' teachers, one to ten years of teaching experience and 'more experienced' teachers, over ten years of teaching experience).
- (f) teachers' training (academy or university training).
- (g) teachers' specialist subject qualification (humanities, maths and science and physical education teachers).

vi. Associations between Greek teachers' attitudes directly and indirectly related to educational equality and their attitudes towards educational outcome and seating arrangements.

vii. Associations between Greek teachers' attitudes to teaching approaches, educational opportunity, feedback, rewards, discipline and task and relevant teachers' classroom behaviour (average levels of teacher and pupil interactions).

- a. Analysis with t tests.
- b. Analysis of teacher-pupils interactions.

i. Sample description

Table V. i: Sample description.

<i>Teachers' Characteristics</i>	<i>Categories</i>		
Gender (N:259)	Male 84 (32%)		Female 175 (68%)
Training (N:129, primary teachers only)	Academy (2 years) 78 (61%)		University (4 years) 51 (49%)
School region (N:260)	Less developed regions 137 (53%)		Developed regions 123 (47%)
Type of school (N:260)	Primary 129 (50%)		Secondary 131 (50%)
Age (N:237)	20-40 years old 112 (47%)		Over 40 years old 125 (53%)
Experience (N:256)	1-10 years of experience 73 (28%)		Above ten years of experience 183 (72%)
Specialist subject qualification (N:141)	Humanities 90 (64%)	Maths and science 37 (26%)	Physical education 14 (10%)

Table above shows that the majority of teachers were:

female, with more than ten years of experience, a university degree and a subject qualification relevant to humanities. There was an equal distribution of schools and teachers in less developed and developed regions and in primary and secondary schools respectively. Finally, as regards their age, teachers were equally distributed between twenty and forty and over forty years of age.

ii. Data collection tools' reliability

a. Questionnaire four reliability.

As mentioned in Chapter IV, section iv. a., in order to establish the internal reliability of teachers' attitudes, whether teachers were consistent, it was decided that each attitude would require two questions asking the same thing, but differently worded. Each pair of attitudes was cross-tabulated and analysed using the statistic kappa. The findings are shown below.

Table V. ii. a : Questionnaire four reliability.

<i>Attitude</i>	<i>Kappa value</i>	<i>Approx. T</i>	<i>Sig.</i>
Educational outcome	.3	5.1	<.001
Seating arrangements	.4	7	<.001
<i>Attitudes directly related to educational equality</i>	<i>Kappa value</i>	<i>Approx. T</i>	<i>Sig.</i>
Educational opportunity	.8	12.4	<.001
Educational respect	.9	14.1	<.001
Pupils' homework	.6	10	<.001
Discipline rules	.5	8.2	<.001
Assign task	.6	10.4	<.001
<i>Attitudes indirectly related to educational equality</i>	<i>Kappa value</i>	<i>Approx. T</i>	<i>Sig.</i>
School aims	.7	11	<.001
Teaching approaches	.8	13.3	<.001
Use of special education	.3	6.5	<.001
Environmental causes for pupils' difficulties	.6	10	<.001
Use of competition	.5	8.2	<.001
Kinds of feedback	.3	4.4	<.001
Kinds of rewards	.3	5	<.001
Effects of marking	.5	8.2	<.001

Details of questionnaire four's reliability are given in the appendix (pp. 292-297).

Table above shows that in all the teachers' attitudes towards educational equality examined (educational outcome, seating arrangements and questions directly and indirectly related to educational equality) teachers' answers were significantly consistent, even though the kappa value was low (i.e. <.5) in six of the teachers' attitudes examined (educational outcome, seating arrangements, discipline rules, use of special education, kinds of feedback and kinds of rewards).

b. Observation schedule two reliability.

As mentioned in Chapter IV, section iv. b., observation reliability was cross tabulated by checking both external and internal reliability.

(a) First, the researcher examined external reliability. Each classroom was observed for three time intervals ³. The researcher recorded teacher's positive

³ Each time interval includes the time spent for a classroom lesson.

⁴ and corrective ⁵ comments towards his or her pupils every five minutes. Positive comments were recorded by the researcher as teacher's positive feedback, praise effort, praise performance and assign task, whereas corrective comments were recorded as corrective feedback and criticism. A spearman correlation coefficient was used to examine whether there was an association, firstly, between the positive comments and, secondly, between the corrective comments. Findings are presented below:

Table V. ii. b. (a): External observation schedule two reliability concerning teachers' positive comments over three time intervals.

N:48	1st time interval	2nd time interval	3rd time interval
1st time interval		.6, <.000	.6, <.000
2nd time interval			.6, <.000

Details of external observation schedule two reliability for teachers' positive comments are given in the appendix (p. 298)

Table above shows that that there was consistency over time in giving positive comments to pupils.

Table V. ii. b. (b): External observation schedule two reliability concerning teachers' corrective comments over three time intervals.

N:48	1st time interval	2nd time interval	3rd time interval
1st time interval		.7, <.000	.7, <.000
2nd time interval			.8, <.000

Details of external observation schedule two reliability for teachers' corrective comments are given in the appendix (p. 299).

Table above shows that there was teachers' consistency over time in giving corrective comments to pupils.

(b) Second, the researcher tested the internal reliability of the observation categories. It was expected that the positive comments' category would contain the sub-categories of positive feedback, praise effort, praise performance and assign task and that the corrective comments' category would contain the sub-categories of corrective feedback and criticising. For

⁴ Positive comments include positive teacher and pupil interactions per five minutes and pupil.

⁵ Corrective comments include corrective teacher and pupil interactions per five minutes and pupil.

this purpose, the alpha reliability scale was used to examine an association between the positive sub-categories and the corrective sub-categories. Findings are presented below:

- (1) Internal observation schedule two reliability concerning teachers' positive comments (N: 48):

Positive feedback, praise effort, praise performance, and assign task interactions.

Details of internal observation schedule two reliability for teachers' positive comments are given in the appendix (p. 300).

An alpha of .6 shows an association between the positive sub-categories.

- (2) Internal observation schedule two reliability concerning teachers' corrective comments (N: 48):

Corrective feedback-Criticise interactions.

Details of internal observation schedule two reliability for teachers' corrective comments are given in the appendix (p. 301).

An alpha of .5 shows moderate association between the corrective sub-categories. This was mainly due to the fact that there were only two sub-corrective categories.

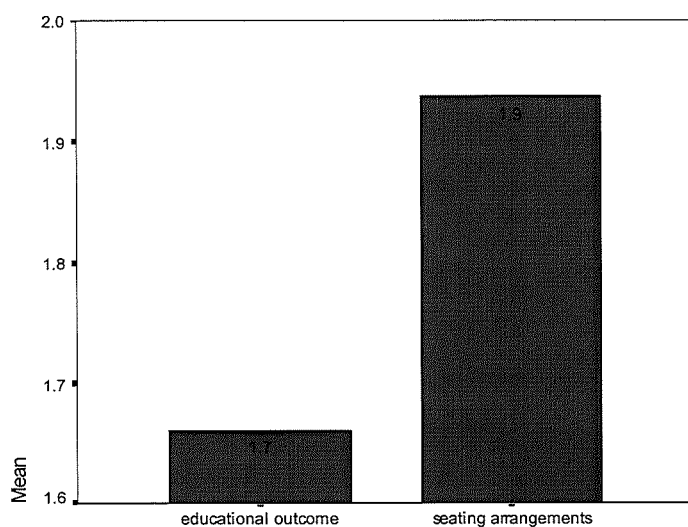
iii. Greek teachers' attitudes towards educational equality

In the analysis of questionnaire four teachers' attitudes towards educational equality are categorised into those concerned with attitudes to educational outcome, seating arrangements and attitudes directly and indirectly related to educational equality. The following table and bar charts summarise teachers' attitudes towards educational equality:

Table V. iii: Frequencies and percentages of Greek teachers' attitudes to educational outcome, seating arrangements and to attitudes directly and indirectly related to educational equality.

Attitude	Liberal egalitarian model of educational equality	Strict egalitarian and fair inequalities models of educational equality
Educational outcome	Leave differences 33 (13%)	Reduce differences 140 (56%)
Seating arrangements	Pupils with difficulties sit separately 8 (3%)	All pupils sit mixed-up 230 (90%)
Attitudes directly related to educational equality		
Attitude	Strict egalitarian model of educational equality	Fair inequalities model of educational equality
Educational opportunity	Equal opportunity 42 (16%)	Emphasis on opportunity to pupils with difficulties 196 (76%)
Educational respect	Equal respect 33 (13%)	Emphasis on respect to pupils with difficulties 218 (84%)
Pupils' homework	Same homework to pupils 42 (16%)	Different homework to pupils with difficulties 176 (69%)
Ways of discipline	Discipline all pupils 111 (46%)	Be tolerant to pupils with difficulties 63 (26%)
Assign task	Assign all pupils 54 (21%)	Assign pupils with difficulties 158 (63%)
Attitudes indirectly related to educational equality		
Attitude	Liberal egalitarian model of educational equality	Strict egalitarian and fair inequalities models of educational equality
School aims	Academic achievement 29 (12%)	Social development 200 (80%)
Use of special education	Special schools 41 (16%)	Ordinary schools 132 (52%)
Use of competition	Agree 60 (24%)	Disagree 135 (54%)
Kinds of feedback	Corrective feedback 3 (2%)	Positive feedback 241 (93%)
Effects of marking	Marking encourages 110 (43%)	Marking discourages 84 (33%)
Attitudes	Options	
Teaching approaches	Whole class approach 130 (51%)	Individual approach 103 (40%)
Pupils' causes for difficulties	Home 189 (76%)	School 32 (13%)
Kinds of rewards	Reward performance 8 (3%)	Reward effort 218 (86%)

Bar chart V. iii. (a): Distribution of mean regarding teachers' attitudes towards educational outcome and seating arrangements.

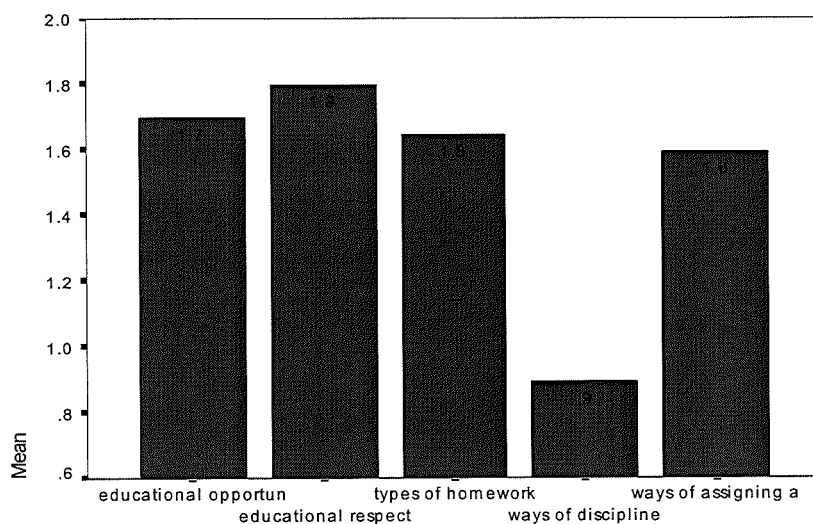


Description key for the means.

Educational outcome. 0: Leave pupils' differences, 2: Reduce pupils' differences.

Seating arrangements: 0: Separate pupils with difficulties, 2: Mix-up all pupils.

Bar chart V. iii. (b): Distribution of mean regarding teachers' attitudes directly related to educational equality.



Description key for the means.

Educational opportunity. 0: Equal opportunity, 2: Emphasis on opportunity to pupils with difficulties.

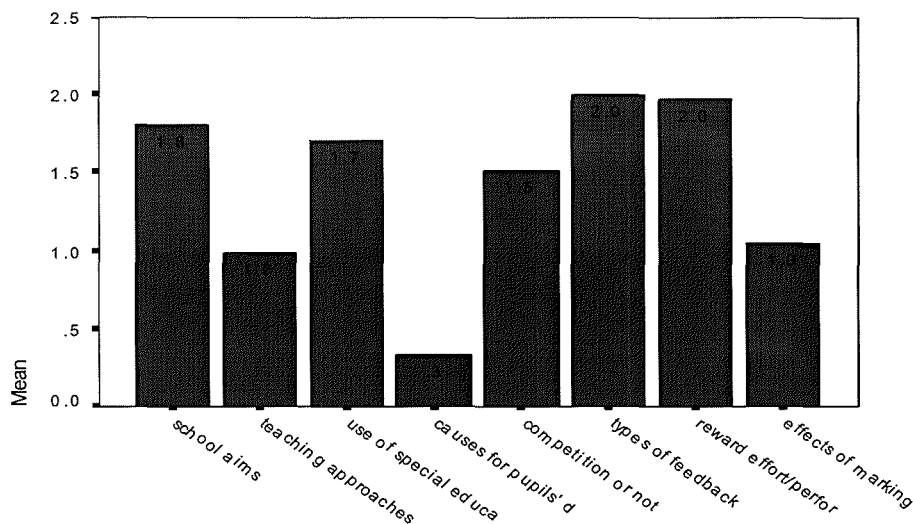
Educational respect. 0: Equal respect, 2: Emphasis on respect to pupils with difficulties.

Types of homework. 0: Same homework to all pupils, 2: Different homework to pupils with difficulties.

Ways of discipline. 0: Discipline all pupils, 2: Be tolerant to pupils with difficulties.

Ways of assigning a task. 0: Assign all pupils a task, 2: Assign pupils with difficulties a task.

Bar chart V. iii. (c): Distribution of mean regarding teachers' attitudes indirectly related to educational equality.



Description key for the means.

School aims. 0: Pupils' academic achievement, 2: Pupils' social development.

Teaching approaches. 0: Whole class teaching approach, 2: Individual teaching approach.

Use of special education. 0: Use of special schools, 2: Use of ordinary schools.

Environmental causes for pupils' difficulties. 0: Home, 2: School.

Use of competition. 0: Agree, 2: Disagree.

Types of feedback. 0: Corrective feedback, 2: Positive feedback.

Kinds of rewards. 0: Reward performance, 2: Reward effort.

Effects of marking. 0: Encouraging, 2: Discouraging.

Table V. iii, bar chart V. iii. (a), bar chart V. iii. (b), and bar chart V. iii. (c) show that:

(a) In terms of educational outcome and seating arrangements, the majority of teachers reflected a strict egalitarian and fair inegalitarian educational equality position by giving an emphasis on reducing pupils' differences and mixing-up all their pupils in class.

(b) In terms of attitudes directly related to educational equality, the majority of teachers reflected a fair inegalitarian educational equality position, by emphasising to pupils with difficulties - with the exception of discipline rules in which they showed a preference for the strict egalitarian model of educational equality.

(c) In terms of attitudes indirectly related to educational equality, the majority of teachers showed a preference to pupils' social development, use of special education in ordinary schools, positive feedback and rewarding pupils' effort. They favoured both whole class and individual teaching approach, they thought that home is more responsible for pupils' difficulties than school is, disagreed with the use of competition in class and believed in the potential encouraging and discouraging effects of marking.

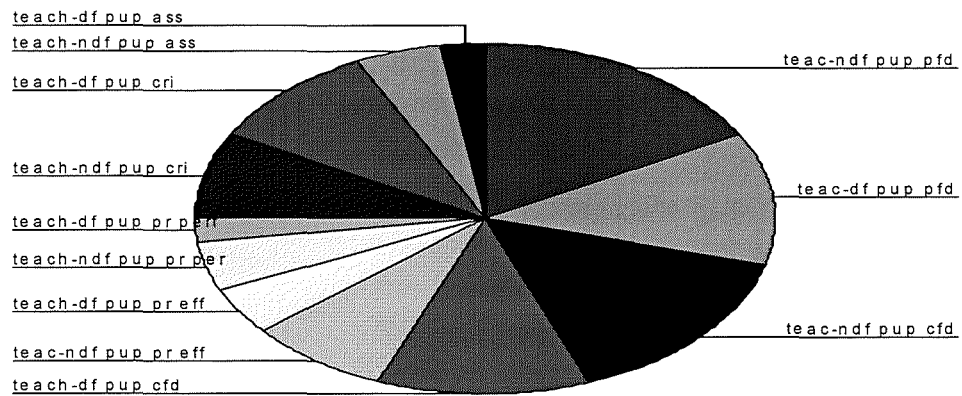
iv. Greek teachers' classroom behaviour (teachers-pupils classroom interactions)

The frequency tables of categories used in the observation schedule two included the mean, standard deviation, minimum and maximum frequency of teacher-pupils with and without difficulties interactions overall and in each separate category (corrective feedback, positive feedback, praise effort, praise performance, criticise and assign). Findings are summarised:

Table V. iv. a: means, SD, min. and max. of teacher-pupils with and without difficulties interactions per five minutes and pupil (No. of classes: 48).

<i>Categories</i>	<i>Pupils without difficulties</i>	<i>Pupils with difficulties</i>	<i>Total Pupils</i>
Teacher-pupils corrective feedback interactions	Mean: 0.07, SD: 0.04, Min: 0.01, Max.: 0.2	Mean: 0.05, SD: 0.04, Min: 0, Max.: 0.1	Mean: 0.06, SD: 0.03, Min: 0.01, Max.: 0.1
Teacher-pupils positive feedback interactions	Mean: 0.08, SD: 0.03, Min: 0.02, Max.: 0.1	Mean: 0.05, SD: 0.04, Min: 0, Max.: 0.2	Mean: 0.08, SD: 0.03, Min: 0.02, Max.: 0.1
Teacher-pupils praise effort interactions	Mean: 0.03, SD: 0.04, Min: 0, Max.: 0.2	Mean: 0.02, SD: 0.02, Min: 0, Max.: 0.1	Mean: 0.03, SD: 0.03, Min: 0, Max.: 0.2
Teacher-pupils praise performance interactions	Mean: 0.02, SD: 0.02, Min: 0, Max.: 0.1	Mean: 0.01, SD: 0.02, Min: 0, Max.: 0.1	Mean: 0.02, SD: 0.02, Min: 0, Max.: 0.1
Teacher-pupils criticise interactions	Mean: 0.04, SD: 0.03, Min: 0, Max.: 0.1	Mean: 0.04, SD: 0.04, Min: 0, Max.: 0.2	Mean: 0.04, SD: 0.03, Min: 0, Max.: 0.1
Teacher-pupils assign task interactions	Mean: 0.02, SD: 0.02, Min: 0, Max.: 0.1	Mean: 0.01, SD: 0.01, Min: 0, Max.: 0.1	Mean: 0.02, SD: 0.02, Min: 0, Max.: 0.1
Total teacher-pupils interactions	Mean: 0.3, SD: 0.1, Min: 0.1, Max.: 0.6	Mean: 0.2, SD: 0.1, Min: 0.05, Max.: 0.6	Mean: 0.3, SD: 0.1, Min: 0.1, Max.: 0.6

Pie V. iv. a: Distribution of teacher-pupils with and without difficulties corrective and positive feedback, praise effort and performance, criticise and assign task interactions per five minutes and pupil.



Description key:

teach: teacher, ndfpup: pupils without difficulties, dfpup: pupils with difficulties, pfd: positive feedback, cfd: corrective feedback, preff: praise effort, prper(f): praise performance, cri: criticise, ass: assign task.

Table V. iv. a and pie V. iv. b show that the average number of teacher and pupils without difficulties interactions was greater than the average number of interactions between teacher and pupils with difficulties in corrective feedback, positive feedback, praise effort, praise performance and assign task. With regards to criticising the average interactions of teacher and pupils without difficulties were the same as the average interactions of teachers and pupils with difficulties.

Table V. iv. a shows that, overall, the total average number of teacher and pupils interactions without difficulties was greater than the total average number of teacher and pupils with difficulties interactions.

Findings of the table V. iv. a. and pie V. iv. a. are analysed using quantitative methods and were discussed qualitatively.

a. Quantitative analysis.

Repeated measures anova test was used to test the sources of variation among related dependent variables, such as teacher-pupils corrective feedback, positive feedback, praise effort, praise performance, criticise and assign task interactions. Any differences between and within subjects were tested. Differences between subjects included differences across the two categories of pupils (pupils with and without difficulties) and differences within subjects included differences across the different kinds of interactions between teacher and pupils.

(a) Between subjects test was intended to check the differences between overall teacher and pupils with and without difficulties interactions per five minutes and pupil. The differences were significant:

$$F=7,3, df=1,9, p<.01.$$

That is, there was a significant difference between pupils with and without difficulties in their overall interactions with their teachers. Pupils with difficulties had less interactions with their teachers than pupils without difficulties.

(b) Within subjects test was intended to check the differences between the different kinds of interactions across both pupils' groups. The differences were significant:

$$F=63,8, df=5,4, p<.000.$$

There were significant differences between the six categories of the overall teacher-pupil interactions means ranging from 0.02 (praise performance and assign task) to 0.08 (positive feedback). Teachers gave more positive feedback in general and less praise performance and assign task.

(c) There was a significant association between interaction levels and pupil groups:

$F=3,2$, $df=5,4$, $p<.007$.

The positive and corrective feedback interaction levels were greater with pupils without difficulties than with pupils with difficulties (0.08-0.05 and 0.07-0.05 respectively), praise effort and performance interaction levels were greater with pupils without difficulties than with pupils with difficulties (0.03-0.02 and 0.02-0.01 respectively) and assign task interaction levels were greater with pupils without difficulties than with pupils with difficulties (0.02-0.01 respectively). However, the criticism interaction levels between pupils with and without difficulties were the same (0.04-0.04 respectively).

Description of the anova tests are given in the appendix (pp. 302-304).

b. Qualitative discussion.

Table V. iv. a. and pie V. iv. a. show that teachers interacted more with pupils without difficulties pupils than with pupils with difficulties. Also teachers gave more positive and corrective feedback to pupils without difficulties, they praised pupils' without difficulties effort and performance more often and assigned tasks to them more often than to pupils with difficulties. On the other hand, teachers criticised pupils without difficulties and pupils with difficulties at a lower rate.

In terms of interactions with all pupils, teachers provided more positive and corrective feedback to their pupils, less critical interactions and much less praising effort, performance and assign task interactions.

v. Associations between Greek teachers' background variables and their attitudes towards educational equality

Teachers' background variables such as school region, type of school, teachers' gender, age, training, specialist subject qualification and experience were cross tabulated with each of the teachers' attitudes towards educational equality investigated to determine any possible association. Chi square tests were used to assess any significant findings implying similarities or differences in associations between the background variables and the teachers' attitudes towards educational equality.

Table V. v. (a): Associations between teachers' attitudes towards educational equality and their background variables based on chi-square test.

<i>Attitudes</i>	<i>Background variables</i>	<i>School region</i>	<i>School type</i>	<i>Teachers' gender</i>	<i>Teachers' age</i>	<i>Teachers' training</i>	<i>Teachers' specialist subject qualification</i>	<i>Teachers' experience</i>	<i>No. of sig.</i>
Educational outcome		<.026	NS	NS	NS	NS	NS	NS	1/7
Seating arrangements		NS	<.023	NS	NS	NS	NS	NS	1/7
Educational opportunity		NS	NS	NS	NS	NS	NS	NS	0/7
Educational respect		<.045	<.033	NS	NS	NS	NS	NS	2/7
Pupils' homework		<.017	<.006	NS	NS	NS	<.009	NS	3/7
Discipline rules		NS	<.001	<.000	NS	NS	NS	NS	2/7
Assign task		NS	<.033	NS	NS	NS	NS	NS	1/7
School aims		NS	NS	NS	NS	NS	NS	NS	0/7
Teaching approaches		NS	<.000	<.004	NS	NS	NS	NS	2/7
Special education use		<.023	NS	NS	NS	NS	NS	NS	1/7
Pupils' causes		<.006	NS	NS	<.007	NS	NS	<.015	3/7
Use of competition		NS	NS	NS	NS	NS	NS	NS	0/7
Kinds of feedback		NS	NS	NS	NS	NS	NS	NS	0/7
Kinds of rewards		NS	NS	NS	NS	NS	NS	NS	0/7
Effects of marking		NS	<.000	NS	NS	NS	<.004	NS	2/7
No. of sig. relations		5/15	7/15	2/15	1/15	0/15	2/15	1/15	

Tables of significant associations between teachers' background variables and their attitudes towards educational equality are given in the appendix (pp. 305-326).

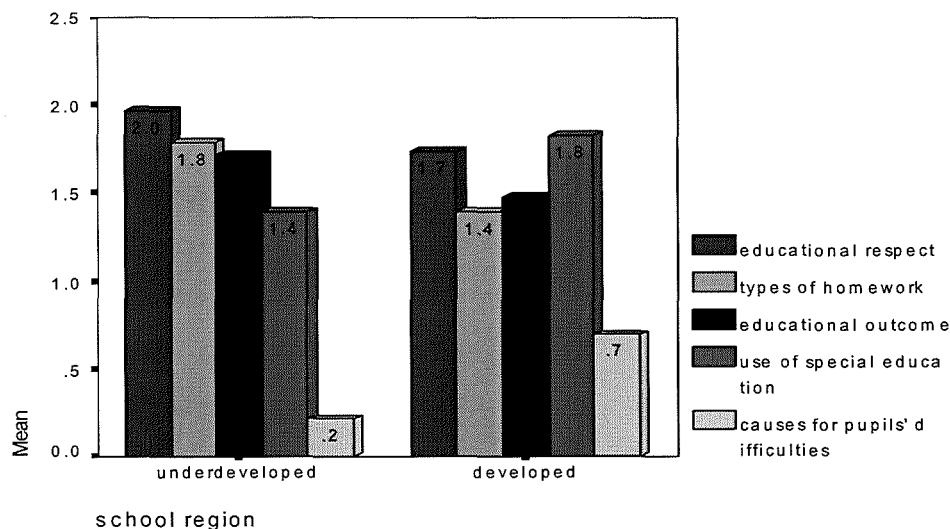
Table above shows that, among background variables, school type was the most significant background variable (7/15) followed by school region (5/15).

Among teachers' attitudes towards educational equality, pupils' homework was the most significant (4/7) followed by teaching approaches, pupils' causes, effects of marking and discipline rules (3/7). There was no significant associations between primary teachers' training and their attitudes towards educational equality.

Analytically:

(a) School region was significantly associated with teachers' attitudes towards educational respect, pupils' homework, educational outcome, use of special education and environmental causes for pupils' difficulties.

Bar chart V. v (a): Distribution of mean concerning teachers' attitudes towards educational respect, pupils' homework, educational outcome, use of special education and environmental causes for pupils' difficulties in relation to school region.



Description key for the means.

Educational respect. 0: equal respect, 2: emphasis on respect to pupils with difficulties.

Pupils' homework. 0: same homework to all pupils, 2: different homework to pupils with difficulties.

Educational outcome. 0: leave pupils' differences, 2: reduce pupils' differences

Use of special education. 0: use of special schools, 2: use of special classes in ordinary schools.

Environmental causes for pupils' difficulties. 0: home more responsible, 2: school more responsible.

Levels of association.

School region-Educational respect: Chi. Sq.= 4, df=1, $p<.045$.

School region-Pupils' homework: Chi. Sq.=5.7, df=1, $p<.017$.

School region-Educational outcome: Chi. Sq.=4.9, df=1, $p<.026$.

School region-Special education use: Chi. Sq.=5.2, df=1, $p<.023$.

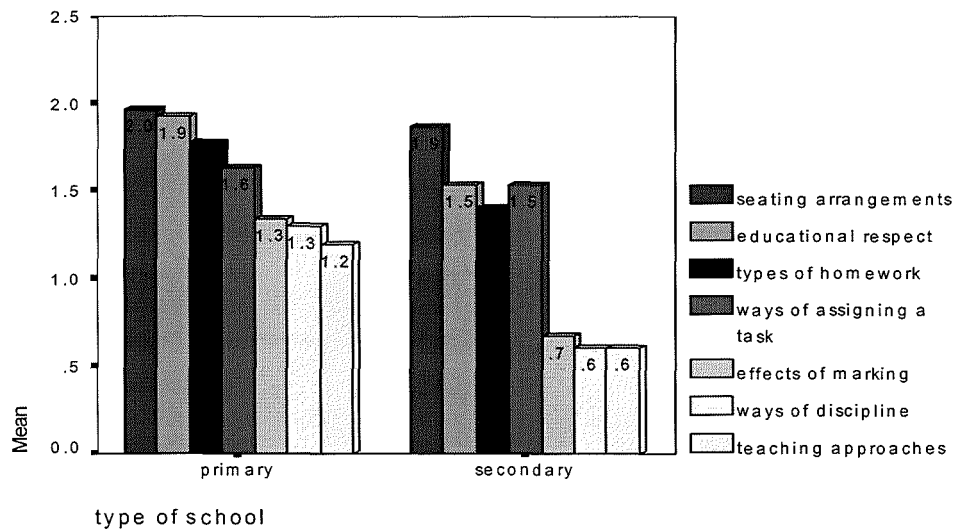
School region-Pupils' causes: Chi. Sq.=7.4, df=1, $p<.006$.

Bar chart above shows that there was a tendency for more teachers from less developed than developed school regions to believe that giving emphasis on educational respect and different homework to pupils with difficulties and reducing pupils' differences are important.

Bar chart above also shows that there was a tendency for more teachers from developed than less developed school regions to believe that the use of special education for pupils with difficulties inside ordinary school is important and that home is responsible for pupils' difficulties.

(b) The type of school was significantly associated with teachers' attitudes towards seating arrangements, educational respect, pupils' homework, assigning task, effects of marking, discipline rules and teaching approaches.

Bar chart V. v. (b): Distribution of mean concerning teachers' attitudes towards seating arrangements, educational respect, pupils' homework, assign task, effects of marking, discipline rules and teaching approaches in relation to type of school.



Description key for the means.

Seating arrangements. 0: put pupils with difficulties separately, 2: mix-up all pupils.

Educational respect. 0: equal respect, 2: emphasis on respect to pupils with difficulties.

Pupils' homework. 0: same homework to all pupils, 2: different homework to pupils with difficulties.

Assign task. 0: assign all pupils a task, 2: assign pupils with difficulties a task.

Effects of marking: 0: marking encourages, 2: marking discourages.

Discipline rules: 0: discipline all pupils, 2: be tolerant to pupils with difficulties.

Teaching approaches: 0: individual teaching approach, 2: whole class teaching approach.

Levels of association.

Type of school-Seating arrangements: Chi. Sq.=5.2, df=1, $p<.023$.

Type of school-Educational respect: Chi. Sq.=4.5, df=1, $p<.033$.

Type of school-Pupils' homework: Chi. Sq.=7.4, df=1, p<.006.

Type of school-Assign task: Chi. Sq.=4.5, df=1, p<.033.

Type of school-Effects of marking: Chi. Sq.=14.2 df=1, p<.000.

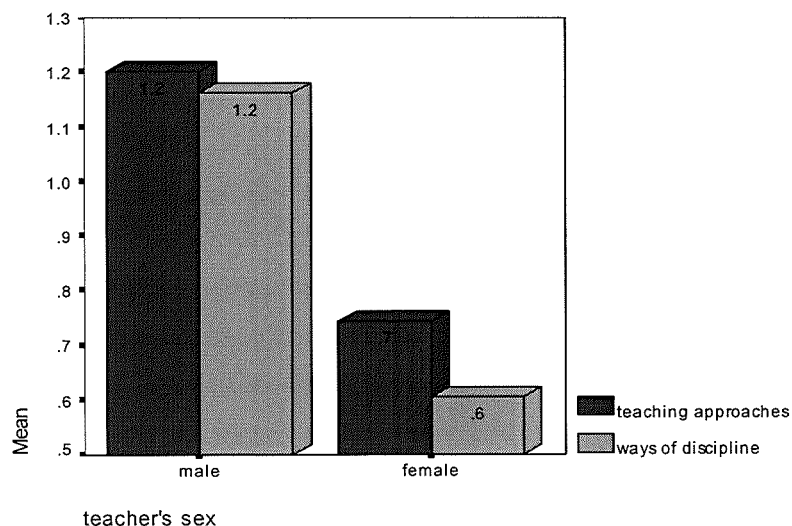
Type of school-Discipline rules: Chi. Sq.=10.3, df=1, p<.001.

Type of school-Teaching approaches: Chi. Sq.=13.1, df=1, p<.000.

Bar chart above shows that there was a tendency for more primary than secondary school teachers to believe that: mixing-up all pupils, emphasising on respect to pupils with difficulties, giving different homework to pupils with difficulties and assigning a task to pupils with difficulties are important; that the effects of marking are negative; that being tolerant to pupils with difficulties is important; and that individual teaching approach is important.

(c) Teachers' gender was significantly associated with teachers' attitudes towards teaching approaches and discipline rules.

Bar chart V. v. (c): Distribution of mean concerning teachers' attitudes towards teaching approaches and discipline rules in relation to teachers' gender.



Description key for the means.

Teaching approaches. 0: individual teaching approach, 2: whole class teaching approach.

Discipline rules. 0: discipline all pupils, 2: be tolerant to pupils with difficulties.

Levels of association.

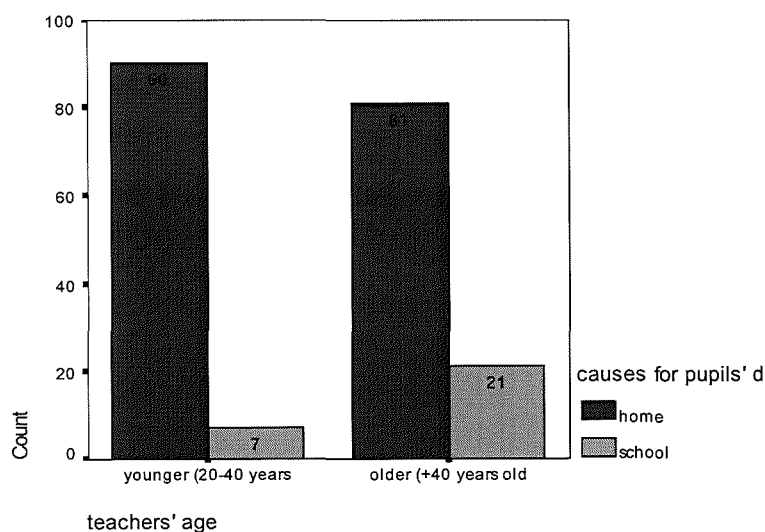
Gender-Teaching approaches: Chi. Sq.=8.4, df=1, p<.004.

Gender-Discipline rules: Chi. Sq.=13.1, df=1, p<.000.

Bar chart above shows that there was a tendency for more male than female teachers to believe that individual teaching approach is important and that being tolerant to pupils with difficulties is important.

(d) Teachers' age was significantly associated with teachers' attitudes towards environmental causes for pupils' difficulties.

Bar chart V. v. (d): Distribution of mean concerning teachers' attitudes towards environmental causes for pupils' difficulties in relation to teachers' age.



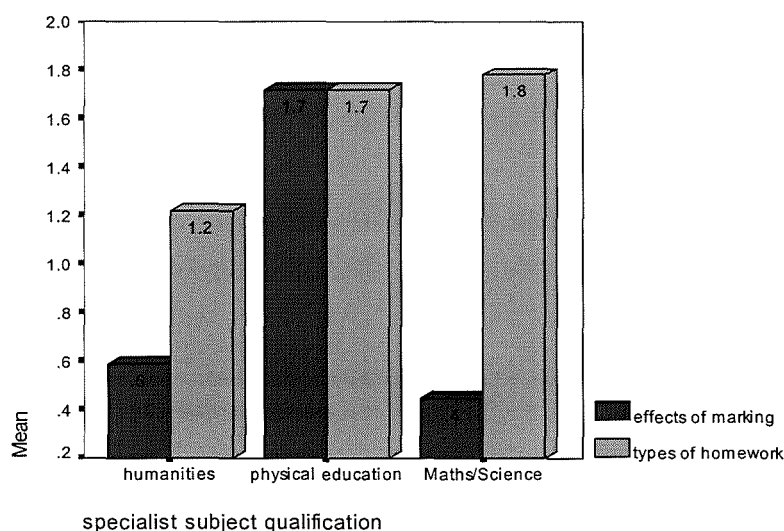
Level of association.

Age-Environmental causes for pupils' difficulties: Chi. Sq.=7.3, df=1, p<.007.

Bar chart above shows that there was a tendency for older than younger teachers to believe that school is responsible for pupils' difficulties.

(e) Teachers' specialist subject qualification was significantly associated with teachers' attitudes towards effects of marking and pupils' homework.

Bar chart V. v. (e): Distribution of mean concerning teachers' attitudes towards effects of marking and pupils' homework in relation to teachers' specialist subject qualification.



Description key for the means.

Effects of marking. 0: marking encourages, 2: marking discourages.

Pupils' homework. 0: same homework to pupils, 2: different homework to pupils with difficulties.

Levels of association.

Specialist subject qualification-Effects of marking: Chi. Sq.=11, df=2, $p<.004$.

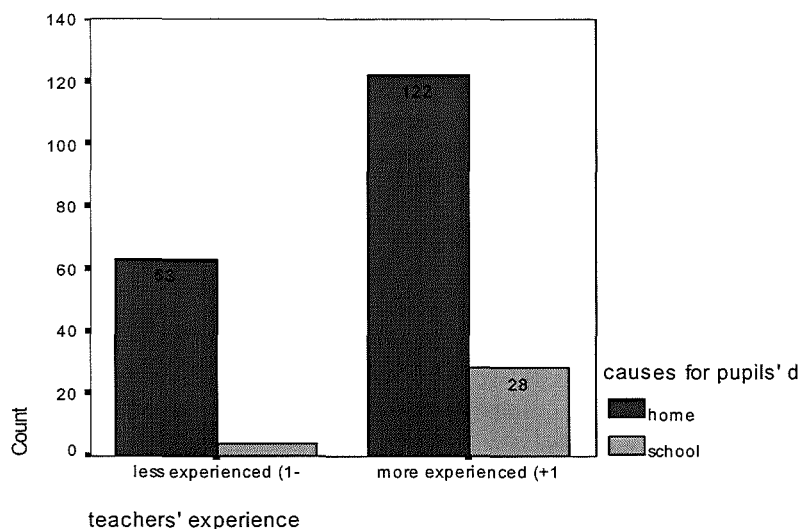
Specialist subject qualification-Pupils' homework: Chi. Sq.=9.4, df=2, $p<.009$.

Bar chart above shows that there was a tendency for more maths and science than physical education and humanities teachers to believe that giving different homework to pupils with difficulties is important.

Bar chart above also shows that there was a tendency for more physical education than humanities and maths and science teachers to believe that encouraging effects of marking are possible.

(f) Teachers' experience is significantly associated with teachers' attitudes towards environmental causes for pupils' difficulties.

Bar chart V. v. (f): Distribution of teachers' attitudes towards environmental causes for pupils' difficulties in relation to teachers' experience.



Level of association.

Teachers' experience-Environmental causes for pupils' difficulties: Chi. Sq.=5.9, df=1, $p<.015$.

Bar chart above shows that there was a tendency for more experienced teachers than less experienced teachers to believe that school is responsible for pupils' difficulties.

Concluding comments regarding associations between teachers' background variables and their attitudes towards educational equality:

(a) School type and school region were the most significant background variables related to teachers' attitudes towards educational equality and

(b) More teachers from less developed regions and primary schools than developed regions and secondary schools favoured the fair inegalitarian and strict egalitarian models of educational equality.

vi. Associations between Greek teachers' attitudes towards educational equality

An exploration of the significant associations between teachers' attitudes towards educational equality explored: first, associations between teachers' attitudes to educational outcome and seating arrangements and their attitudes directly and indirectly related to educational equality; second, associations between teachers' attitudes directly related to educational equality; third, associations between teachers' attitudes indirectly related to educational equality and fourth, associations between teachers' attitudes directly and indirectly related to educational equality. Significant findings showing similarities or differences in the associations between teachers' attitudes towards educational equality were tested by Chi-Square tests..

There were no significant associations between teachers' attitudes towards educational outcome and seating arrangements.

Table V. vi. (a): Associations between teachers' attitudes to educational outcome, seating arrangements and their attitudes directly and indirectly related to educational equality based on chi square test.

<i>Attitudes directly related to educational equality</i>	<i>Educational outcome</i>	<i>Seating arrangements</i>
Educational opportunity	<.013	NS
Educational respect	<.000	NS
Pupils' homework	<.000	NS
Discipline rules	<.009	NS
Assign task	NS	NS
<i>Attitudes indirectly related to educational equality</i>	<i>Educational outcome</i>	<i>Seating arrangements</i>
School aims	NS	NS
Teaching approaches	NS	NS
Use of special education	NS	NS
Environmental causes for pupils' difficulties	NS	NS
Use of competition	NS	<.048
Kinds of feedback	NS	<.000
Kinds of rewards	<.010	<.001
Effects of marking	<.031	NS
No. of signif. associat.	6 / 13	4 / 13

Bar charts of the significant associations between teachers' attitudes towards educational outcome, seating arrangements and their attitudes directly and

indirectly related to educational equality are given in the appendix (pp. 327-335).

Table above outlines the total number of significant associations was 9/26. Educational outcome was significantly associated six times and seating arrangements three times.

Concluding comments regarding the associations between teachers' attitudes to educational outcome, seating arrangements and their attitudes directly and indirectly related to educational equality:

(a) the majority of teachers believed that reducing pupils' differences and mixing-up pupils are more important.

(b) the majority of teachers indicated a preference for the strict egalitarian and fair inegalitarian models of educational equality (by concentrating on pupils with difficulties, mixing-up all pupils and reducing pupils' differences and disciplining all pupils respectively).

(c) the majority of teachers showed a preference for leaving pupils' differences and encouraging the effects of marking, which reflects a liberal egalitarian approach to educational equality.

Table V. vi. (b): Associations between teachers' attitudes directly related to educational equality based on chi square test.

<i>Attitudes</i>	<i>Educational opportunity</i>	<i>Educational respect</i>	<i>Pupils' homework</i>	<i>Discipline rules</i>	<i>Assign task</i>	<i>No. of significant associations.</i>
<i>Educational opportunity</i>		<.000	NS	NS	NS	1/4
<i>Educational respect</i>			<.000	<.008	<.000	3/3
<i>Pupils' homework</i>				<.004	<.000	2/2
<i>Discipline rules</i>					<.001	1/1
<i>Assign task</i>						Total: 7/10

Bar charts of significant associations between teachers' attitudes directly related to educational equality are given in the appendix (pp. 336-342).

Table above shows that the total number of significant associations was 7/10.

Educational respect was the most significant (3/3) followed by pupils' homework.

Concluding comments regarding associations between teachers' attitudes directly related to educational equality:

(a) the majority of teachers showed a preference for the model of fair inequalitarian educational equality by giving emphasis on pupils with difficulties in terms of opportunity, respect, homework and assign task.

(b) in terms of discipline the majority of teachers favoured of the model of strict egalitarian educational equality by disciplining all pupils the same.

Table V. vi. (c): Associations between teachers' attitudes indirectly related to educational equality based on chi square test.

<i>Attitudes</i>	<i>School aims</i>	<i>Teaching approaches</i>	<i>Special education use</i>	<i>Pupils' causes</i>	<i>Use of competition</i>	<i>Kinds of rewards</i>	<i>Effects of marking</i>	<i>Kinds of feedback</i>	<i>No. of sign. ass.</i>
School aims		NS	<.011	NS	<.004	<.000	<.001	NS	4/7
Teaching approaches			NS	NS	<.009	NS	<.016	NS	2/7
Special education use				NS	NS	NS	<.003	NS	2/7
Pupils' causes					NS	NS	NS	NS	0/7
Use of competition						<.014	<.000	NS	4/7
Kinds of rewards							<.042	NS	3/7
Effects of marking								NS	5/7
Kinds of feedback									

Bar charts of significant associations between teachers' attitudes indirectly related to educational equality are given in the appendix (pp. 343-352).

Table above shows that the total number of significant associations was 10/28. The effects of marking was the most significant question (5/7) followed by school aims and use of competition (4/7).

Concluding comments regarding associations between teachers' attitudes indirectly related to educational equality:

(a) the majority of teachers favoured pupils' social development, individual teaching approach and use of special education in ordinary schools, disagreed with the use of competition in class and believed that praising pupils' effort is important.

(b) a smaller group of teachers favoured the encouraging effects of marking, pupils' academic achievement, whole class teaching approach, use of special education in special schools and agreed with the use of competition in class.

Table V. vi. (d): Associations between teachers' attitudes directly and indirectly related to educational equality based on chi square test.

<i>Attitudes directly and indirectly related to educational equality</i>	<i>Educational opportunity</i>	<i>Educational respect</i>	<i>Pupils' homework</i>	<i>Discipline rules</i>	<i>Assign task</i>	<i>No. of sig. ass.</i>
School aims	<.032	<.028	<.001	NS	NS	3/5
Teaching approaches	<.004	NS	<.051	<.012	NS	3/5
Special education use	NS	NS	NS	NS	NS	0/5
Pupils' causes	NS	NS	NS	<.048	NS	1/5
Use of competition	<.009	NS	NS	<.040	NS	2/5
Kinds of rewards	<.048	NS	NS	NS	NS	1/5
Effects of marking	NS	NS	<.002	<.000	<.009	3/5
Kinds of feedback	NS	<.002	NS	NS	NS	1/5
No. of sig.	4/8	2/8	3/8	4/8	1/8	

Bar charts of significant associations between attitudes directly and indirectly related to educational equality are given in the appendix (pp. 353-367).

Table above shows that the total number of significant associations was 14/40.

Educational opportunity and discipline rules were the most significant questions directly related to educational equality (4/8 significant associations).

The effects of marking were the most significant question indirectly related to educational equality with a significant association of 3/5.

Concluding comments regarding associations between attitudes directly and indirectly related to educational equality:

(a) the majority of teachers favoured the fair inegalitarian model of educational equality (by giving emphasis on opportunity and respect to pupils with difficulties, by giving different homework to pupils with difficulties and by being tolerant to pupils with difficulties).

(b) the majority of teachers gave emphasis on pupils' social development and effort, disagreed with the use of competition and highlighted positive feedback and use of special education in ordinary schools.

(c) a smaller group of teachers was in favour of the strict egalitarian model of educational equality (by being in favour of giving equal opportunity and same homework to all pupils, disciplining and assigning a task to all pupils). This group also believed that home is responsible for pupils' difficulties and supported whole class teaching approach and encouraging effects of marking.

vii. Associations between Greek teachers' attitudes and their classroom behaviour (average levels of teacher and pupil interactions)

In examining the associations between teachers' attitudes and their classroom behaviour implies the assessment of the corresponds between what teachers report about their attitudes in the questionnaire and their relevant classroom behaviour, indicating an association between teachers' theory and practice. Some attitudes, in the following areas, can be conceptually linked to the observable teachers and pupils interactions:

Table V. vii: Observable teacher and pupil classroom interactions to corresponding teachers' attitudes to educational equality.

Observable interaction	Definition	Corresponding attitude
Teacher-pupil interactions	Every interaction of teacher with one pupil	Teacher interacts more: With all pupils with pupils with difficulties
Teacher-class interactions	Every interaction of teacher with the pupils as a whole	Teacher interacts more: with individual pupils with all pupils
Teacher-pupil positive feedback interactions	Every interaction of teacher with one pupil in which teacher helps pupil to find the right answer	Teacher gives more positive feedback to pupils
Teacher-pupil corrective feedback interactions	Every interaction of teacher with one pupil in which teacher does not help pupil to find the right answer	Teacher gives more corrective feedback to pupils
Teacher-pupil praise effort interactions	Every interaction of teacher with one pupil in which teacher encourages pupil's effort to find the right answer	Teacher praises more pupil's effort
Teacher-pupil praise performance interactions	Every interaction of teacher with one pupil in which teacher praises pupil's success in finding the right answer	Teacher praises more pupil's performance
Teacher-pupil criticise interactions	Every interaction of teacher with one pupil in which teacher criticises pupil's inappropriate behaviour in class	Teacher: Disciplines all pupils is tolerant to pupils with difficulties
Teacher-pupil assign task interactions	Every interaction of teacher with one pupil in which teacher assigns a task to a pupil	Teacher: assigns all pupils a task assigns more pupils with difficulties a task

a. Analysis with t tests.

Independent sample t tests were used to identify any significant differences in the observable variable means between the two independent groups, which the two categories of teachers' attitudes towards educational equality.

Table V. vii. a. (a): Teaching approaches attitude-teaching approaches observable interactions t test ⁶.

<i>Teaching approach attitude</i>	<i>Teaching approach observable mean interactions</i>	
Teachers either favour:	Teacher-individual pupil interactions	Teacher-whole class interactions
Whole class teaching approach (N=26)	0.3 (SD:0.11)	0.2 (SD:0.07)
Individual teaching approach (N=17)	0.3 (SD:0.08)	0.26(SD:0.05)
	t=-.122, NS, df=41	t=-.023, NS, df=41

Table above demonstrates that there was no significant difference between teachers who favoured individual or whole class teaching approach in the questionnaire and their classroom interactions with individual pupils or whole class.

Table V. vii. a. (b): Educational opportunity attitude-educational opportunity observable interactions t test ⁷.

<i>Educational opportunity attitude</i>	<i>Educational opportunity observable mean interactions</i>	
Teachers either favour:	Teacher-all pupils interactions	Teacher-pupils with difficulties interactions
Equal opportunity (N=4)	0.37 (SD:0.16)	0.3 (SD:0.15)
Emphasis on opportunity to pupils with difficulties (N=38)	0.3 (SD:0.08)	0.2 (SD:0.12)
	t=1.4, NS, df=40	t=.8, NS, df=40

Table above shows that there was no significant difference between teachers who favoured equal opportunity or those who emphasised opportunities to pupils with difficulties in the questionnaire and their classroom interactions with all pupils or with pupils with difficulties.

⁶ Whole class teaching approach attitude corresponds to teacher and whole class interactions per five minutes and pupil observation mean interactions and individual teaching approach attitude corresponds to teacher and individual pupil observable mean interactions per five minutes and pupil.

⁷ Equal opportunity attitude corresponds to teacher and all pupils observable mean interactions per five minutes and pupil and emphasis on opportunity to pupils with difficulties attitude corresponds to teacher and pupil with difficulties observable mean interactions per five minutes and pupil with difficulties.

Table V. vii. a. (c): Kinds of feedback attitude-kinds of feedback observable interactions t test ⁸.

<i>Kinds of feedback attitude</i>	<i>Kinds of feedback observable mean interactions</i>	
Teachers either favour:	Teacher - pupil positive feedback interactions	Teacher - pupil corrective feedback interactions
Give corrective feedback to pupils (N=1)	0.07 (SD:0.03)	0.05 (SD:-)
Give positive feedback to pupils (N=43)	0.07 (SD:0.02)	0.06 (SD:-)
	t=-.136, NS, df=42	t=-.362, NS, df=42

Table above indicates that there was no significant difference between teachers who favoured positive or those who favoured corrective feedback in the questionnaire and their classroom interactions with pupils concerning giving positive or corrective feedback to pupils.

Table V. vii. a. (d): Kinds of rewards attitude-kinds of rewards observable interactions t test ⁹.

<i>Kinds of rewards attitude</i>	<i>Kinds of rewards observable mean interactions</i>	
Teachers either favour:	Teacher-pupil praise performance interactions	Teacher-pupil praise effort interactions
Praise pupils' performance (N=2)	0.01 (SD:0.08)	0.07 (SD:0.01)
Praise pupils' effort (N=39)	0.01 (SD:0.01)	0.03 (SD:0.03)
	t = -.4, NS, df = 39	t = 1.8, NS, df = 39

Table above shows that there was no significant difference between teachers who favoured either praising pupils' effort or those who praised performance in the questionnaire and their classroom interactions with pupils concerning praising pupils' effort or performance.

⁸ Give corrective feedback to pupils attitude corresponds to teacher and pupil corrective feedback observable mean interactions per five minutes and pupil and give positive feedback to pupils attitude corresponds to teacher and pupil positive feedback observable mean interactions per five minutes and pupil.

⁹ Praise pupils' performance attitude corresponds to teacher and pupils praise performance observable mean interactions per five minutes and pupil and praise pupils' effort attitude corresponds to teacher and pupils praise effort observable mean interactions per five minutes and pupil.

Table V. vii. a. (e): Discipline rules attitude-discipline rules observable interactions t test ¹⁰.

<i>Discipline rules attitude</i>	<i>Discipline rules observable mean interactions</i>	
Teachers either favour:	Teacher - pupil criticise interactions	Teacher - pupil with difficulties criticise interactions
Criticise all pupils (N=22)	0.03 (SD:0.02)	0.04 (SD:0.03)
Be tolerant to pupils with difficulties (N=13)	0.04 (SD:0.02)	0.05 (SD:0.05)
	t=-.4, NS, df=33	t=-.8, NS, df=33

Table above indicates that there was no significant difference between teachers who favoured either criticising all pupils or those who favoured being tolerant to pupils with difficulties in the questionnaire and their classroom interactions concerning criticising all pupils or being tolerant to pupils with difficulties.

Table V. vii. a. (f): Assign task attitude-assign task observable interactions t test ¹¹.

<i>Assign task attitude</i>	<i>Assign task observable mean interactions</i>	
Teachers either favour:	Teacher-all pupils assign task interactions	Teacher-pupils with difficulties assign task interactions
Assign all pupils task (N=10)	0.01 (SD:0.01)	0.01 (SD:0.01)
Assign pupils with difficulties task (N=28)	0.02 (SD:0.01)	0.01 (SD:0.01)
	t=-1.1, NS, df=36	t=-.5, NS, df=36

Table above shows that there was no significant difference between teachers who favoured assigning all pupils a task or those who favoured assigning pupils with difficulties a particular task in the questionnaire and their classroom interactions concerning assigning all pupils or pupils with difficulties a task.

¹⁰ Criticise all pupils attitude corresponds to teacher and pupil criticise observable mean interactions per five minutes and pupil and be tolerant to pupils with difficulties attitude corresponds to teacher and pupil with difficulties criticise observable mean interactions per five minutes and pupil with difficulties.

¹¹ Assign all pupils task attitude corresponds to teacher and pupil assign task observable mean interactions per five minutes and pupil and assign pupils with difficulties a task attitude corresponds to teacher and pupil with difficulties assign task observable mean interactions per five minutes and pupil with difficulties.

Table V. vii. a. (g): Seating arrangements attitude-pupils' seating arrangements percentages t test ¹².

Seating arrangements attitude	Seating arrangements percentages of all pupils sitting mixed-up and pupils with difficulties sitting separately	
	Percentages of all pupils sitting mixed-up	Percentages of pupils with difficulties sitting separately
Teachers either favour:		
Mix-up all pupils (N=44)	0.6 (SD:0.35)	0.3 (SD:0.40)
Separate pupils with difficulties (N=2)	0.1 (SD:0.56)	0.4 (SD:0.30)
	t=-.2.1, <.039, df=44	t=.5, NS, df=44

Table above demonstrates that there was significant difference between teachers who favoured mixing-up all pupils and their classroom practices concerning seating arrangements. Teachers who reported in the questionnaire that they preferred mixing-up all pupils applied that attitude in their classroom practices concerning seating arrangements. On the other hand, there was no significant difference between teachers who favoured separating pupils with difficulties and their classroom practices concerning separating pupils with difficulties.

Description of the above t tests is given in the appendix (pp. 368-374).

Concluding comments regarding teachers' attitudes and observable teacher-pupils interactions t tests:

(a) There was no statistically significant difference between teachers' attitudes to teaching approaches, educational opportunity, kinds of feedback, kinds of rewards, discipline rules and assign task and their relevant classroom behaviour and;

(b) There was one statistically significant difference between teachers' attitudes to seating arrangements and their classroom practices; teachers who were in favour of mixing-up all their pupils applied this attitude in classroom practice.

¹² Mix-up all pupils attitude corresponds to percentages of all pupils sitting mixed-up and separate pupils with difficulties attitude corresponds to percentages of pupils with difficulties sitting separately.

b. Analysis of teacher-pupils interactions.

The aim of this analysis is to qualitatively examine the extent to which extreme cases of teachers who favoured one teaching practice or another corresponded with their attitudes' statements. The focus was drawn to teachers who interact a lot with their pupils, therefore the emphasis is on whether these interactions that indicate the existence of a strong relationship, or not, between their attitudes and their classroom behaviour.

The extreme cases of teachers who were below or above one standard deviation of the following interactions' ratios were used:

teacher-pupil and teacher-class, teacher-pupil and teacher-pupils with difficulties, teacher-pupil positive and teacher-pupil corrective feedback, teacher-pupil praises effort and teacher-pupil praise performance, teacher-pupil criticise and teacher-pupil with difficulties criticise, teacher-pupil assign task and teacher-pupil with difficulties assign task interactions per five minutes and pupil.

Table V. vii. b. (a): Whole class and individual teaching approaches attitudes corresponding to exceptional teacher-whole class and teacher-individual pupils classroom interactions' ratios.
(N: 48, Mean ratio:1.2 , SD:0.3)

Teacher	T-P and T-CL. int. per five min. And pup. ratio	Comment (Classroom behaviour)	Attitude
1	0.8	whole class teaching approach	Individual teaching approach
2	0.8	whole class teaching approach	Individual teaching approach
3	1.6	Individual teaching approach	Whole class teaching approach
4	1.7	Individual teaching approach	Individual teaching approach
5	1.9	Individual teaching approach	Whole class teaching approach
6	1.9	Individual teaching approach	Whole class teaching approach
7	2	Individual teaching approach	Whole class teaching approach
8	2.2	Individual teaching approach	Both individual, whole class teaching approach

Key to descriptions.

T-P and T-CL: Teacher-all pupils and teacher class interactions' ratios.

Key to ratios.

R>1: More individual teaching approach, R=1: Same individual and whole class teaching approach and R<1: More whole class teaching approach.

Table above shows that there were eight extreme cases of teacher-pupil and teacher-class interactions per five minutes and pupil. In one case the attitude to individual teaching approach corresponded with the relevant classroom interaction ratio (1.7). Therefore, there is indication that this teacher applied their attitude towards the individualistic teaching approach in the classroom behaviour. In the rest of the cases there was no correspondence between teachers' attitudes and classroom interactions' ratios, which means that teachers did not apply their attitudes towards the individualistic and whole class teaching approach in their classroom behaviour.

Table V. vii. b. (b): Attitudes to strict egalitarian and fair inegalitarian educational opportunity corresponding to exceptional teacher-all pupils and teacher-pupils with difficulties classroom interactions' ratios.

(N:48, Mean ratio:1.5, SD:0.8)

<i>Teacher</i>	<i>T-P and T- P.DF. int. per five min. And pup. ratio</i>	<i>Comment (Practice)</i>	<i>Attitude</i>
1	0.6	Pupils with difficulties emphasis	Pupils with difficulties emphasis
2	0.6	Pupils with difficulties emphasis	Pupils with difficulties emphasis
3	2.6	Equal emphasis	Both equal and pupils with difficulties emphasis
4	2.7	Equal emphasis	Pupils with difficulties emphasis
5	3.3	Equal emphasis	Pupils with difficulties emphasis
6	3.8	Equal emphasis	Both equal and pupils with difficulties emphasis
7	4.2	Equal emphasis	Pupils with difficulties emphasis

Key to descriptions.

T-P and T-P.DF: Teacher-all pupils and teacher-pupils with difficulties interactions' ratios.

P.DF refers to pupils with difficulties.

Key to ratios.

R>1: Equal emphasis, R=1: Same equal emphasis and pupils with difficulties emphasis and R<1: Pupils with difficulties emphasis.

Table above shows that there were seven extreme cases of teacher-pupil and teacher-pupils with difficulties interactions per five minutes and pupil. In two cases the attitudes towards the fair inegalitarian educational opportunity corresponded with the relevant classroom interaction ratios (0.6 and 0.6). Thus, indicating that these two teachers applied their attitudes towards the fair inegalitarian educational opportunity in their classroom behaviour. In the rest of the cases there was no correspondence between teachers' attitudes and classroom interactions' ratios, which means that teachers did not apply their attitudes towards the fair inegalitarian and strict egalitarian educational opportunity into their classroom behaviour.

Table V. vii. b. (c): Attitudes to positive and corrective feedback corresponding to exceptional teacher-pupil positive feedback and teacher-pupil corrective feedback classroom interactions' ratios.

(N:48, Mean ratio:1.5, SD:1.2)

<i>Teacher</i>	<i>T-P POS and T-P COR int. per five min. and pup. ratio</i>	<i>Comment (Practice)</i>	<i>Attitude</i>
1	3	Positive feedback	Positive feedback
2	3.2	Positive feedback	Positive feedback
3	5.6	Positive feedback	Positive feedback
4	6.3	Positive feedback	Positive feedback

Key to descriptions.

T-P POS and T-P COR: Teacher-all pupils positive and corrective feedback interactions' ratios.

Key to ratios.

R>1: More positive feedback, R=1: Same positive and corrective feedback and R<1: More corrective feedback.

Table above shows that there were four extreme cases of teacher-pupil positive and corrective interactions per five minutes and pupil. In all of the cases the attitudes towards positive feedback corresponded with the relevant classroom interactions' ratios (3, 3.2, 5.6, 6.3). There is indication that these teachers applied their attitudes towards positive feedback in their classroom behaviour.

Table V. vii. b. (d): Attitudes to praising effort and performance corresponding to exceptional teacher-pupil praise effort and teacher-pupil praise performance classroom interactions' ratios.

(N:48, Mean ratio:2.6, SD:2.7)

<i>Teachers</i>	<i>T-P PR.EFF and PR. PER int. per five min. And pup. ratio</i>	<i>Comment (Practice)</i>	<i>Attitude</i>
1	6	Praise effort	Praise effort
2	6.5	Praise effort	Praise effort
3	7	Praise effort	Praise effort
4	7.7	Praise effort	Praise effort
5	10	Praise effort	Both praise effort and performance
6	12.3	Praise effort	Praise performance

Key to descriptions.

T-P PR.EFF and PR.PER: Teacher all pupils praise effort and praise performance interactions' ratios.

Key to ratios.

R>1: Praise more effort, R=1: Same praise effort and performance and R<1: Praise more performance.

Table above shows that there were six extreme cases of teacher-pupil praise effort and performance interactions per five minutes and pupil. In four of the cases the attitudes towards praise effort corresponded with the relevant classroom interactions' ratios (6, 6.5, 7, 7.7). Thus, there is indication that these four teachers applied their attitudes towards praise effort in their classroom behaviour. In the rest of the cases there is no correspondence between teachers' attitudes and classroom interactions' ratios, which means that teachers did not apply their attitudes towards praise effort or performance in their classroom behaviour.

Table V. vii. b. (e): Attitudes to disciplining all pupils and being tolerant to pupils with difficulties corresponding to exceptional teacher-all pupils criticise and teacher-pupils with difficulties criticise classroom interactions' ratios.

(N:48, Mean ratio:1, SD:0.5)

<i>Teacher</i>	<i>T-P and T-P.DF. DISC. int. per five min. and pup. ratio</i>	<i>Comment (Practice)</i>	<i>Attitude</i>
1	0.1	Be tolerant to pupils with difficulties	Discipline all pupils
2	0.2	Be tolerant to pupils with difficulties	Both discipline all pupils, be tolerant to pupils with difficulties
3	0.3	Be tolerant to pupils with difficulties	Be tolerant to pupils with difficulties
4	0.33	Be tolerant to pupils with difficulties	Be tolerant to pupils with difficulties
5	0.4	Be tolerant to pupils with difficulties	Both discipline all pupils, be tolerant to pupils with difficulties
6	0.45	Be tolerant to pupils with difficulties	Be tolerant to pupils with difficulties
7	1.6	Discipline all pupils	Be tolerant to pupils with difficulties
8	2	Discipline all pupils	Discipline all pupils
9	2.1	Discipline all pupils	No answer
10	2.2	Discipline all pupils	Discipline all pupils
11	2.4	Discipline all pupils	Discipline all pupils

Key to descriptions.

T-P and T-P.DF.DISC: Teacher-all pupils and teacher-pupils with difficulties interactions' ratios.

P.DF refers to pupils with difficulties.

Key to ratios.

R>1: Discipline all pupils, R=1: Both discipline all pupils and be tolerant to pupils with difficulties and R<1: Be tolerant to pupils with difficulties.

Table above shows that there were eleven extreme cases of teacher-discipline all pupils and teacher-be tolerant to pupils with difficulties interactions per five minutes and pupil. In six of the cases the attitudes towards discipline corresponded with the relevant classroom interactions' ratios (three indicate preference for disciplining all pupils and three for be tolerant to pupils with difficulties, 2, 2.2 and 2.4 and 0.3, 0.33 and 0.45 respectively). Therefore there is indication that these six teachers applied their attitudes towards disciplining all pupils and being tolerant to pupils with difficulties in their classroom behaviour. In the rest of the cases there is no correspondence between teachers' attitudes and classroom interactions' ratios, which means that teachers did not apply their attitudes towards disciplining all pupils or being tolerant to pupils with difficulties in their classroom behaviour.

Table V. vii. b. (f): Attitudes to assigning all pupils and pupils with difficulties a task corresponding to exceptional teacher-all pupils assign task and pupils with difficulties assign task classroom interactions' ratios.

(N:48, Mean ratio:1.9, SD:1.2)

<i>Teachers</i>	<i>T-P. and T-P. DF. ASS. int. per five min. And pup. ratio</i>	<i>Comment (Practice)</i>	<i>Attitude</i>
1	0.4	Assign task pupils with difficulties	Assign task all pupils
2	0.6	Assign task pupils with difficulties	Assign task pupils with difficulties
3	3.2	Assign task all pupils	Assign task pupils with difficulties
4	3.2	Assign task all pupils	Assign task pupils with difficulties
5	3.5	Assign task all pupils	Assign task pupils with difficulties
6	3.6	Assign task all pupils	Assign task pupils with difficulties
7	5.5	Assign task all pupils	Assign task all pupils

Key to descriptions.

T-P and T-P.DF.ASS: Teacher-all pupils and teacher-pupils with difficulties assign task interactions' ratios.

P.DF refers to pupils with difficulties.

Key to ratios.

R>1: Assign all pupils, R=1: Both assign all and pupils with difficulties and R<1: Assign pupils with difficulties.

Table above shows that there were seven extreme cases of teacher-all pupils and teacher-pupils with difficulties assign task interactions per five minutes and pupil. In two of the cases the attitudes towards assigning task to pupils with difficulties and assigning task to all pupils corresponded with the relevant classroom interactions' ratios (0.6 and 5.5 respectively). There is indication that these two teachers applied their attitudes towards assigning pupils with difficulties a task and assigning all pupils a task in classroom practice. In the rest of the cases there is no correspondence between teachers' attitudes and classroom interactions' ratios, which means that teachers did not apply their attitudes towards assigning all pupils a task or assigning pupils with difficulties a task in their classroom behaviour.

Concluding comments regarding correspondence between extreme cases of teachers' attitudes and their classroom behaviour:

(a) Findings concerning the extreme cases of teachers who were below or above one standard deviation of their interactions with pupils were inconsistent in the areas of teaching approaches, educational opportunity and assigning task, teachers' attitudes and classroom behaviour association was weak.

(b) Teachers' attitudes and classroom behaviour associations were stronger for feedback, praise and discipline. It is interesting to note that teachers' attitudes and classroom behaviour association was stronger for specific observation categories like feedback, praise and effort, than for general categories like teaching approaches and educational opportunity. However, when it came to assigning tasks, the association was weak.

Conclusions

The research findings are summarised into three main categories: (a) teachers' attitudes towards educational equality; (b) teachers' classroom behaviour; and (c) association between teachers' attitudes towards educational equality and their classroom behaviour.

(a) Teachers' attitudes towards educational equality.

The majority of teachers' attitudes towards educational equality favoured the fair inegalitarian and strict egalitarian educational equality models. A minority of teachers favoured a mixture of strict egalitarian and liberal egalitarian educational equality models. Some significant associations were found between teachers' background variables and their attitudes towards educational equality. Among the variables, it is important to note that school region and school type were the most significant. Teachers from less developed school regions and primary school teachers were more likely to

favour the model of fair inequalitarian educational equality. Teachers' answers were found significantly reliable, which indicates strong external reliability of the questionnaire. Numerous significant associations between questions directly and indirectly related to educational equality were found. This indicates a strong internal reliability of the questionnaire, which leads to strong external validity of the questions used.

(b) Teachers' classroom behaviour (teachers-pupils interactions).

It is noteworthy that teachers interacted more with pupils without difficulties than with pupils with difficulties and therefore reflecting a preference for the liberal egalitarian model of educational equality. Teachers also disciplined all pupils at the same rate, reflecting a preference for the strict egalitarian model of educational equality. Teachers-pupils interactions were found significantly reliable over time, which indicates strong external reliability of the observation schedule. Numerous significant associations between observation categories were found, indicating a strong internal reliability of the observation schedule, which leads to strong external validity of the observation categories used.

(c) Association between teachers' attitudes and their classroom behaviour.

No significant associations between teachers' attitudes-relevant classroom behaviour were found. One significant association was found between seating arrangements and relevant classroom behaviour. In extreme case teachers, there was indication of teachers' attitudes and their classroom behaviour significant association, especially with regards to specific interactions like feedback, praise and discipline.

Overall, the research findings showed that the majority of teachers favoured the fair inequalitarian and strict egalitarian educational equality models in theory. Teachers' classroom behaviour revealed preference for the liberal egalitarian model of educational equality and partly for the strict egalitarian model of educational equality. The picture of the findings is summarised in the

figure below:

Figure V: Summary of the findings.

<p>Teachers' attitudes: Fair inegalitarian educational equality.</p> <p>1. The majority of teachers showed preference for the fair inegalitarian and strict egalitarian educational equality models.</p> <p>2. A minority of teachers showed preference for a mixture of strict egalitarian and liberal egalitarian educational equality models.</p>	<p>Teachers' attitudes-Teachers' classroom behaviour: No significant association.</p> <p>1. No significant associations between teachers' attitudes and their relevant classroom behaviour were found, except in seating arrangements.</p> <p>2. Teachers did not apply the models of strict egalitarian and fair inegalitarian educational equality in their classroom behaviour.</p>	<p>Teachers' classroom behaviour: Mainly liberal egalitarian educational equality and partly strict egalitarian educational equality.</p> <p>1. Teachers interacted more with pupils without difficulties than pupils with difficulties. Teachers disciplined pupils with and without difficulties equally.</p> <p>2. Teachers applied the model of liberal egalitarian educational equality in their classroom behaviour. Teachers also applied to a lesser extent the strict egalitarian model of educational equality in their classroom behaviour.</p>
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CHAPTER VI

Discussion of the findings

Introduction

The aim of this research is to investigate Greek teachers' attitudes ¹ towards educational equality and the extent to which these attitudes are applied in teachers' classroom behaviour. In this thesis, the researcher has explored the complex and often contradictory nature of attitudes. It is assumed that attitudes are not consistent with each other nor simply translated into actions. The stance taken is that attitudes involve contrary and conflicting elements and people do not always translate them in practice. From this point of departure, the researcher explored the extent to which Greek teachers express contradictory educational attitudes and whether they apply them in their classroom behaviour. To achieve this end, the researcher used a conceptual and exploratory framework that assumes the contradictory nature of educational attitudes and their possible inconsistency with classroom practice. Furthermore, it is assumed that teachers are faced with the problem of meeting the varying needs of their pupils. In a mainstream classroom, teachers need to meet pupils' common needs, individual needs and exceptional needs.

Equality was analysed in two pairs, each being incompatible: strict egalitarianism-liberal egalitarianism and opportunity-outcome. Where the strict egalitarian principle tends to be simplistic, the liberal egalitarian principle - despite its good intentions to promote meritocracy - is unfair and promotes inequality among pupils.

¹ As mentioned in section i. a. (a) of Chapter II (p. 59), this research defines the term 'attitude' as teachers' tendency to evaluate something by agreeing or disagreeing to a statement or stating their preference to a given option.

In the educational field pupils with difficulties ² cannot compete on equal terms with other pupils that are socially more favoured. This results in unequal educational outcomes, despite the educational opportunities given to pupils. Tensions are created when pupils' different needs are met. It is argued that an alternative way of resolving these tensions is redefining equality toward a fair inegalitarian principle. According to this trend, teachers would pay more attention to the least favoured pupils, without neglecting the gifted and talented ones.

The application of liberal egalitarianism and fair inegalitarianism in education is via differentiation. Differentiation is defined and analysed as a means of applying 'fairness' in education. To apply fairness in education, differentiation's aim is to balance strict egalitarianism and liberal egalitarianism with equality of outcome and opportunity. This research considered two approaches to apply differentiation to education. Firstly, the compulsory approach that presupposes access to the same schooling for all pupils regardless of their socio-economic backgrounds and emphasises the pupils with difficulties in order to promote an equal chance to compete with their 'average' and 'bright' classmates. The second approach is the market approach that presupposes parental choice of pupils' schooling and creates different kinds of schools, according to pupils' academic level. This approach is currently applied in Western societies, like in the UK. It is argued that neither of the approaches can fully serve pupils' different needs in the most efficient way. The market approach is criticised because it distorts compulsory education and eventually the meritocratic principle itself, by maintaining pre-existing patterns of inequality.

However, teachers may not apply their attitudes towards educational equality in their classroom behaviour. Teachers' attitudes and their respective classroom behaviour may be inconsistent. Teachers may explicitly communicate their espoused theories of action but the theories that govern

² As mentioned in section i. a. (b) of Chapter II (pp. 63-64), this research defines the term 'pupils with difficulties' as based on teachers' interpretations of pupils with learning difficulties within the Greek mainstream compulsory educational context. It is individual class and teacher based and excludes pupils with severe learning difficulties (in the UK pupils with severe learning difficulties are referred to as severe learning difficulties - SLD - or profound and multiple learning difficulties - PMLD).

their classroom behaviour are their implicit theories in use. There could be an inconsistency between the two theories that can be identified and acknowledged by observing teachers in class.

Research findings concerning teachers' attitudes towards their pupils, their classroom behaviour and associations between their attitudes and their classroom behaviour were presented in Chapter II. Teachers' attitudes towards educational equality may be significantly affected by the presence of pupils with difficulties in mainstream school classrooms. Research evidence indicates that teachers may favour the fair inegalitarian equality model in theory, but they may have some unconscious biases towards pupils with difficulties, the 'self fulfilling prophecies'. Teachers' classroom behaviour reflects the liberal egalitarian model of equality, as teachers tend to focus more on pupils without difficulties. Therefore, the association between teachers' attitudes towards pupils with difficulties and their relevant classroom behaviour appears to be problematic.

The above findings are related to the topic of this research, Greek teachers' attitudes towards educational equality and the associations with their relevant classroom behaviour. Greek teachers work in a educational system that attempts to reflect the principles of modern democracy and educational equality, which provides a democratic setting for treating all pupils according to their own needs. Greek educational provisions include a mixture of strict egalitarian, liberal egalitarian and fair inegalitarian equality principles. Strict egalitarian principles are expressed by providing universal educational access. Emphasising pupils with difficulties and compensating for their difficulties express fair inegalitarian principles. Liberal egalitarian principles are expressed by the use of marking, awards and distinctions for pupils who perform well and repetition of class for pupils who perform poorly. Under this educational legislation, Greek teachers need to combine the three educational equality models and pay attention to all of their pupils' needs. This can prove difficult to be difficult to accomplish.

Considering these introductory points, the researcher will: (i) evaluate the research methods used; (ii) summarise the key findings concerning Greek teachers' attitudes towards educational equality, their classroom behaviour and associations between their attitudes and their classroom behaviour and discuss how these findings relate to relevant literature review; (iii) give his interpretations of the findings; (iv) discuss the findings with the aim to explore the development of models of educational equality and expand on the current thinking about the relationship between educational equality models and classroom practice; (v) suggest policy implications and (vi) introduce stimulations for further thinking and research.

i. Evaluation of the research methods

a. Research method used.

This research employed the deductive research approaches it developed a theory and applied it in practice. The research conceptualised a theory about educational equality and teachers' theories in use and action, and operationalised the theory. To test the theory, the research method was based on structured questionnaires and observations that were conducted in a representative sample of Greek teachers in order to generalise its main findings. The methodology that resulted in the main research was a quantitative survey that informed a quantitative data analysis.

A combination of qualitative and quantitative research methods was employed during the pilot phase of the questionnaire and observation. It is argued that qualitative research methods are more appropriate than quantitative methods for exploring and constructing the attitude statements, which were derived from the conceptual educational equality framework. Moreover, the qualitative research method ensured the context (internal) attitude questionnaire validity more than quantitative methods (such as factor analysis). The quantitative approaches employed during the piloting of the attitude statements' measurement ensured the external validity of the attitude statements.

The observation pilot used qualitative research method to ensure the context (internal) validity of the observation categories and explore the empirical and predictive validity of observation categories through their associations with relevant attitude statements. Having ensured the internal validity of the data collection tools, the quantitative survey aimed at standardising and generalising the results. Attention was drawn to data collection tools' reliability. The questionnaire's reliability was checked through external validity - by associating pairs of similar attitude statements - and internal reliability. The internal reliability of the questionnaire was based on the associations between attitude statements and leads to external validity. The reliability of the observation was checked through external reliability - reliability over classroom time intervals - and internal reliability. The internal reliability of the observation was based on the associations between observation categories and lead to external validity.

b. Data collection tools used.

The aim of the research was to examine Greek teachers' attitudes and their associations with their classroom behaviour and to achieve this a combination of questionnaires and observations were used. As mentioned in Chapter I, section iii., there is a distinction between teachers' theories in use and theories in action. Furthermore, other research findings indicate that the association between teachers' attitudes and their classroom behaviour varies (see Chapter II, section ii. b). Chapter II also refers to research findings that indicate teachers' express a positive attitude towards pupils with difficulties (see section i. b), whereas the findings concerning their classroom behaviour indicate the opposite (see section ii. b). These research findings indicate a possible inconsistency, which needs investigation, especially within the Greek educational content where evidence suggests that there is inconsistency between the Greek theoretical educational declarations and the compulsory Greek school practice (see Introduction, section ii).

Questionnaires were employed in this research because:

(1) questionnaires were proved useful in surveying large numbers of teachers about their attitudes towards educational equality; (2) questionnaires allowed teachers the time to give a considered response to questions; (3) questionnaires can be answered anonymously and this is critical in encouraging teachers to provide candid views on what happens in their classrooms or in the whole school, and (4) the research aimed to map out teachers' attitudes and a questionnaire - especially a structured questionnaire - was considered the most effective.

The research also used structured observations in order to examine teachers' classroom behaviour. The observations' format corresponded with the structured questionnaires' format. The observation format included structured categories to be observed, which were associated with some of the questionnaire statements and also investigated other features of teacher-pupil interactions that needed to be thoroughly investigated on a structured basis. The refined observation format was accomplished through a pilot study in which the teachers' qualitative feedback was used to enrich the structured observation categories and ensure their associations with the questionnaire statements.

c. Analysis and measurement of the educational equality research framework.

A framework for educational equality was constructed that could be used for further investigations. The construction of the conceptual and exploratory framework was based on the models of educational equality, differentiation to education and the teachers' options that appear to affect their attitudes towards educational equality and pupils with difficulties, as analysed in Chapter I and Chapter II, section iii respectively. The conceptual and exploratory framework included both questions directly and indirectly related to educational equality.

The questions directly related to educational equality referred to pupils with and without difficulties. A focus on either one of the two kinds of pupils indicated a preference for either the liberal egalitarian or the fair inegalitarian model of educational equality. Preference for the strict egalitarian model of educational equality was indicated when there was no evidence of teachers differentiating towards any kind of pupils and therefore teachers paid the same attention towards both pupils with and without difficulties. The questions indirectly related to educational equality did not refer to pupils with and without difficulties, but to the factors that affect teachers' attitudes towards educational equality (see Chapter II, section iii).

The type of questionnaire statements was dependent on the kind of measurement format to be used. Two attitude measurement formats were considered: one, a scale of agreement and disagreement to questionnaire statements, and second, two or more options to choose from. The research underwent three attitude questionnaire pilot studies in order to identify the most appropriate measurement format. Pilot studies explored both formats and concluded that two or more options in each attitude statement was the more appropriate and final measurement format. The final attitude questionnaire used was structured to include two options-categories for each question. The questions directly related to educational equality (dealing with educational opportunity, pupils' homework, assign task and discipline rules) did not include a liberal egalitarian of educational equality option, leaving the egalitarian and fair inegalitarian educational equality options. The questions indirectly related to educational equality did not use a combined - 'both' - option.

d. Research considerations

This sub-section considers a number of the research methods. In other words, if this research were to be redone, what could have been different? Two such examples are considered.

(a) Creation of another attitude questionnaire based on teachers' theories in use.

This method would have taken into consideration the distinction between teachers' theories in use and theories in action (see Chapter I, section iv) by creating additional attitude statements to investigate teachers' theories in action. The questionnaire that was used in this research investigated teachers' attitudes from the perspective of their theories in use, which involved both the cognitive and evaluative elements of attitudes (see Chapter II, section i. a. 1). It was assumed that teachers' theories in action would be derived from their classroom behaviour, which the researcher observed. If teachers' theories in use and action were investigated, the associations between them could have been analysed and compared with classroom behaviour. For example, teachers could be asked what they thought was better to do in classroom practice concerning educational opportunity, in addition to what they thought better in theory. Teachers' theories in use and actions could have been compared and then tested against how they translated into classroom practice. The problem with such a method is that it is time-consuming and creates a lengthy questionnaire that would discourage teachers from responding.

(b) Give the questionnaire to teachers first and then observe them in class.

This method has the advantage of categorising teachers according to their answers in the questionnaire, and then selecting the teachers to observe. This would result in a more representative sample of the observed teachers, since the researcher can observe teachers who have given different answers to the

questionnaire and test if they applied their statements in their classroom behaviour. However, the disadvantage of the approach is that teachers would know the nature of the research and alter their usual classroom behaviour. Furthermore, the researcher did not have the option of selecting the teachers to observe, as the questionnaires had to be anonymous.

ii. The main findings of the research and their relation to relevant literature

By bringing to the fore the main findings of the research and relating them to relevant literature, the researcher sought to highlight those findings that are of a broader interest, and, when in accordance with the findings of other researchers, those ones that are of a broader acceptance. This section summarises the main research findings and relates them to the relevant literature. This is done in four sub-sections: the first deals with Greek teachers' attitudes towards educational equality; the second deals with associations between Greek teachers' attitudes and their background variables; the third deals with associations between Greek teachers' attitudes and their classroom behaviour; and the fourth deals with Greek teachers' classroom behaviour.

a. Greek teachers' attitudes to educational equality.

There are four main points concerning Greek teachers' attitudes towards educational equality and the relation to the relevant literature:

(a) the majority of Greek teachers' attitudes towards educational equality - covering 32 out of the total of 41 significant associations ³ - favoured the fair inequalitarian and strict egalitarian educational equality models. These attitudes revealed preference for: (1) placing emphasis on pupils with difficulties in terms of educational opportunity and respect; (2) assigning different homework to pupils with difficulties; (3) entrusting pupils of low esteem and difficulties

³ As mentioned in Chapter V, section vi (p. 197), statistical tests were used to check significant associations between attitudes directly and indirectly related to educational equality.

with tasks that they can carry out; (4) mixing-up pupils in class; (5) showing increased sensitivity to pupils with difficulties and even tolerance in matters of discipline; (6) praising pupils' effort; (7) emphasising pupils' social development, (8) providing more positive feedback to pupils; (9) supporting use of special education inside ordinary schools; and (10) reducing pupils' difficulties. These teachers disagreed with the use of competition in class and had negative views on the use of marking.

The majority of teachers in this research sample were positive towards pupils with difficulties. This finding is in accordance with research findings by and Croll and Moses (1985), Horne (1986), Scruggs and Mastropieri (1996) and Avramidis et al. (2000).

(b) a minority of Greek teachers' attitudes towards educational equality - covering 9 out of the total of 41 significant associations - favoured a mixture of the strict egalitarian and liberal egalitarian models of educational equality. These attitudes revealed a preference for: (1) leaving or neglecting pupils' differences; (2) emphasising pupils' academic achievement; (3) the use of special education in special schools; (4) favouring whole class teaching approach; (5) assigning the same tasks to all pupils; and (6) disciplining all pupils the same. These teachers also agreed with the use of competition in class and had positive views on the use of marking.

A minority of teachers in this research was negative towards pupils with difficulties. This finding corresponds to relevant research findings Coleman (1986), Landon and Mesinger (1989) and Smith et al. (1989).

(c) the majority of the research findings concerning teachers' attitudes towards pupils, presented in this thesis, revealed a combination of attitudes of the two groups of teachers described above. On the one hand, teachers were generally positive towards pupils with difficulties, yet on the other hand teachers created the so-called 'self fulfilling prophecies', which involved negative expectations about pupils with difficulties (Rosenthal and Jacobson,

1966,1968; Rubin et al., 1973; Braun, 1976; Leach and Raybould, 1977; Woolfolk and Nicolich, 1980; Good, 1982; Wilcox, 1982; Lewin et al., 1983; Alexander et al., 1987; Hayes and Gunn, 1988; Page and Valli, 1990; Hilliard, 1992; Babad, 1993). This research suggests that Greek teachers created 'self fulfilling prophecies' towards pupils with difficulties, regardless of favouring a mixture of the fair egalitarian and strict egalitarian models of educational equality or a mixture of the strict egalitarian and the liberal egalitarian models of educational equality.

(d) school aims, use of integration and inclusion or grouping, competition and marking contributed to a clearer understanding of educational equality. As mentioned in Chapter II, section iii. b., theoretical assumptions and research evidence suggests that educational equality is affected by school aims (Dennison, 1971; Dewey, 1972; Kershaw, 1973; Elliot, 1982), use of integration and inclusion or grouping (Ball, 1981; Schvartz, 1981; Burgess, 1983, 1984; Gamoran and Berends, 1987; Ireson et al., 1989; Norwich, 1994, 1; Kaila and Theodoropoulou, 1997; Riga, 1997; Ireson and Hallam, 1999), competition (Deci and Ryan, 1982; Nichols, 1984; Covington and Omelich, 1985; Good and Brophy, 1987; Dweck and Leggett, 1988; Covington, 1992, Harackiewicz and Elliot, 1993) and marking (Yelon and Weinstein, 1977; Woolfolk and Nicolich, 1980; Deci and Ryan, 1985; Freiderikou, Folerou-Tserouli, 1991; Covington, 1992, 1998). During this research it became apparent that positive attitudes towards use of competition, use of marking, pupils' academic achievement and use of special education inside special schools were associated with the liberal egalitarian model of educational equality; and conversely, negative attitudes towards the use of competition and use of marking and positive attitudes towards pupils' social development and use of special education in ordinary schools were associated with the strict egalitarian and the fair inegalitarian models of educational equality.

Attitudes towards pupils' praise, teaching approaches and environmental causes of pupils' difficulties had no significant theoretical or empirical evidence to suggest that these attitudes related to educational equality [see Chapter IV,

section iii. (a), (b)]. Findings from this research indicated that teachers' preference for praising pupils' effort and favouring individualistic teaching approach were indicators of promoting the fair inegalitarian model of educational equality. Conversely, teachers emphasising praising pupils' performance and concentrating on whole class approach were indicators of promoting the strict egalitarian and the liberal egalitarian models of educational equality. This analysis suggests that emphasis on pupils' performance is associated with emphasis on pupils' achievement, which favours pupils without difficulties. It follows that teachers who emphasise pupils' effort, support pupils with difficulties, since it is important to focus on their effort to accomplish an aim and not only on their performance. Furthermore, emphasis on whole class teaching favours mostly the strict egalitarian model of educational equality and partly the liberal egalitarian model of educational equality. It follows that individualistic teaching meets all pupils' different needs, especially those with difficulties. Attitudes towards environmental causes for pupils' difficulties were also related to educational equality, but at a smaller scale. Teachers who believed that pupils' schools were more responsible for pupils' difficulties, were in favour of the strict egalitarian and the fair inegalitarian models of educational equality. The reason being that these teachers believed that school can make a difference and can help pupils with difficulties. Conversely, teachers who believed that pupils' family background is more responsible for the pupils' difficulties were in favour of the liberal egalitarian model of educational equality. The reason being that these teachers believed that pupils' difficulties are created by family factors and are outside the school's responsibility; therefore, school cannot make a difference and cannot help pupils with difficulties.

b. Associations between Greek teachers' background variables and their attitudes towards educational equality.

There are five main points concerning the associations between Greek teachers' background variables and their attitudes towards educational equality:

(a) it was more likely that Greek teachers working in schools in less developed regions favoured the fair egalitarian educational model. This was demonstrated by the positive attitudes to helping pupils with difficulties, specifically in their homework. They also believed that the school is more responsible for pupils' difficulties.

The difference in attitudes towards the treatment of pupils with difficulties between teachers working in schools of developed and less developed regions identified in this research corresponds with relevant UK research findings (Rutter et al., 1975; Chazan, 1978; Cox and Jones, 1983). However, this research does not confirm the US research finding that suggested that school region is not a significant factor influencing teachers' attitudes (Knoff, 1984). It seems that teachers working in less advantaged regions are more likely to encounter pupils with difficulties and they are more emotionally attached to them than teachers from developed regions. Teachers working in schools within developed regions have positive attitudes towards use of special education inside mainstream schools as schools in which they are working have appropriate funds for organising special settings inside ordinary schools. In contrast, schools in less developed regions do not have substantial funds to organise special school settings inside mainstream schools. The availability of funding can influence teachers to believe that special education inside special schools can be more effective. It is also possible that teachers teaching in developed regions' schools can expect pupils' parents to offer their children more help, thus thrusting the main responsibility for pupils' difficulties on their family background. On the other hand, teachers teaching in less developed regions' schools may be more aware that pupils' parents are not in the position to help their children, so they do not blame them, and accept that schools in

less developed regions are more responsible for pupils' difficulties than schools in more developed regions.

(b) Greek primary school teachers were more likely to favour the fair egalitarian educational model than secondary school teachers were. This was demonstrated by favouring the mixing all pupils, individual teaching and the assignment of different homework to pupils with difficulties, increased sensitivity and tolerance to pupils with difficulties, and a belief that marking had more negative than positive effects.

The difference between primary and secondary teachers' attitudes towards educational equality identified in this research corresponds with a relevant US research finding by Anderson and Anderson (1995) and by a Greek research finding by Kaila and Theodoropoulou (1997). Anderson's findings indicated that primary teachers are generally more positive towards pupils with difficulties than their secondary school counterparts. Kaila and Theodoropoulou (1997) concluded that pupils' performance is more important for Greek secondary teachers than for primary teachers. A possible explanation is that according to data obtained by the National Statistical Agency of the Greek Ministry of Education during the academic year of 1992-1993, secondary teachers did not promote eight percent of the total number of Greek secondary pupils to the next grade (Katsikas, 1997). Findings from this research can be explained by the fact that Greek primary teachers are more informed and aware of their pupils' difficulties because of their different training and interaction in only one class. Primary school teachers are able to get to know their pupils better which motivates them to try to help them. On the other hand, Greek secondary teachers do not concentrate on individual pupils and do not differentiate their interactions with pupils with and without difficulties as their primary school counterpart. It is possible that Greek secondary teachers are not well informed and aware of pupils' difficulties because of different training and the fact that they teach in different classes. Thus, they do not get to know their pupils well and understand their problems.

The difference in attitudes between Greek primary and secondary teachers found in this research is due to the different training they received [see Chapter III, section i, b, (c)]. Another reason for the attitude differences may be that primary teachers feel that the fair egalitarian educational approach is better suited to pupils of primary than secondary school age because primary teaching differs from secondary teaching. According to Hargreaves, (2000) primary teaching is characterised by physical and professional closeness, which creates greater emotional intensity between primary teachers and their pupils; secondary teaching is characterised by greater professional and physical distance, which leads secondary teachers to treat emotions as instructions in the classroom.

(c) gender was a significant factor in influencing teachers' attitudes. This finding does not correspond with relevant research findings from studies carried out in US, Germany and Korea (Kelly et al., 1977; Langfeldt, 1992). More specifically, this research reported that Greek male teachers favoured differentiating for pupils with difficulties more than their female colleagues did. This is a rather unexpected finding, considering other research findings from the US, the UK, Malta and Greece that suggests that: (1) male teachers rate more severe discipline problems than their female colleagues (Bolg and Falzon, 1989, 1990; Chazan, 1994) and (2) female teachers are more emphatic towards their pupils than their male colleagues (Good et al., 1973; Kelly et al., 1985; Ritter, 1989; Jones and Wheatley, 1990; Anderson and Anderson, 1995; Hopf and Hatzichristou, 1999).

(d) specialist subject qualification affected teachers' attitudes. Greek maths and science teachers were more willing than Greek humanities teachers to differentiate pupils' homework, especially pupils with difficulties' homework were. This is a rather unexpected finding, considering that (1) maths and science teachers in Greece are not adequately educated concerning pupils' educational and psychological needs (see Chapter III, section I) and (2) Greek research findings (Hatzichristou and Hopf, 1991; Hopf and Hatzichristou, 1999) have reported that Greek humanities' teachers are more willing to

differentiate their classroom behaviour in favour of pupils with difficulties than maths and sciences' teachers. A possible explanation is that maths and science teachers are more focused on pupils' content mastery and task, so they differentiate pupils with difficulties' homework in order to make sure that pupils with difficulties will be able to accomplish the given task.

Greek physical education teachers believed that marking discourages pupils. It could be that physical education teachers do not use marking at the same extent as humanities and maths and science teachers do as they use other techniques to motivate their pupils.

(e) age and experience were significant factors in influencing teachers' attitudes. This research reported that the older, more experienced Greek teachers were, the more they acknowledge that the school is more responsible for pupils' difficulties and realise that they can make a difference in terms of supporting their pupils, particularly those with difficulties. These findings are not in accordance with US research findings, which reported that teachers' age is not a significant variable to teachers' attitudes (Kelly et al., 1977; Jamienson, 1984); nor are they in accordance with UK and US research findings, which reported that young teachers are more positive towards pupils than old teachers (Feimen-Nesmer and Floden, 1986; Ball, 1987; Riddell, 1988; Chazan, 1994). On the other hand, these research findings are in accordance with Moore and Fine (1978), Marston and Leslie (1983) and Anderson and Anderson (1995) research findings that indicated that the older, more experienced teachers were more positive towards pupils with difficulties than less experienced and younger teachers.

c. Greek teachers classroom behaviour (teachers-pupils classroom interactions).

In this research it was reported that there was differentiation in teacher treatment of pupils, which favoured pupils without difficulties. This finding corresponds with other relevant research findings from the UK, the US, Australia and Canada (Heller and White, 1975; Good, 1980;1982; Fry, 1983;

Strain et al., 1983); it does not correspond with the findings of Russell and Lin (1977) from Canada. However, Russell and Lin's case study of one teacher and her class is difficult to generalise.

This research reported that Greek teachers generally praised their pupils more than they criticised them. This finding corresponds with similar research findings from the UK, the US and Hong Kong (Heller and White, 1975; Rutter et al., 1979; Galton et al., 1980; Brophy, 1981; Nafpaktis et al., 1985; Merrett and Wheldal, 1986; 1987; Winter, 1990; Wheldall and Beaman, 1994; Charlton et al., 1995). However, it does not correspond with findings offered by White (1975) from the US and Thomas et al., (1978) from New Zealand who reported that the majority of teachers disapproved of their pupils' behaviour more than approved.

In this research the average percentage of Greek pupils in a class identified by their teachers as having difficulties was twenty per cent. In practical terms, it meant that teachers identified around one in five pupils as having difficulties in the class. This finding corresponds with Croll and Moses' research (1985) who provide evidence that indicates that teachers in mainstream English schools also identified pupils as having difficulties at the rate of one out of five. Croll (1996) repeated the study and found that the ratio of pupils identified by their teachers in mainstream English schools as having difficulties has increased to one out of four. This finding implies that English mainstream teachers are identifying more pupils as having difficulties in their classes than before.

Greek teachers' classroom behaviour in this research revealed a preference for applying the liberal egalitarian model of educational equality and partly applying the strict egalitarian model. Teachers focused more on pupils without difficulties and also disciplined at the same rate both pupils with and without difficulties. The fair inegalitarian model of educational equality was ignored. Practically, it meant that teachers did not focus on as many as twenty per cent of their pupils they identified as having difficulties. Teachers interacted at the same rate with both pupils with and without difficulties only with regards to

discipline, which is not considered a positive teacher-pupil interaction. For pupils with difficulties, it meant that their teachers did not interact with them at a significant rate and when they did, it involved mostly negative interactions. This research finding is related to other researchers' findings like Heller and White (1975), Rutter et al. (1979), Galton et al. (1980), Nafpaktis et al. (1985), Merrett and Wheldal (1986; 1987), Winter (1990) and Wheldall and Beaman (1994). These researchers have presented research evidence from the UK, the US and Hong Kong, which suggests that teachers focused more on pupils' academic performance than social behaviour. The focus on academic performance favours pupils without difficulties, since they can easily participate in academic interactions with their teachers than their classmates with difficulties. In contrast, Charlton et al., (1995) indicated that teachers focused more on pupils' social responses. However, Charlton et al., (1995) conducted their research in two schools in the isolated Atlantic island of St. Helena, so their findings are difficult to generalise.

d. Association between Greek teachers' attitudes towards educational equality and their classroom behaviour.

No significant differences in terms of opportunity, teaching approaches, feedback, praise, criticise and assign task were found between Greek teachers who differed in attitudes and classroom behaviour. A statistically significant association between Greek teachers' attitudes to seating arrangements and their relevant classroom practices was found. It suggests that teachers who reported a preference for mixing their pupils applied that preference in classroom practice.

The inconsistency found between Greek teachers' attitudes and their relevant classroom behaviour corresponds with relevant research findings on inconsistency from the UK and the US (Ekstrom, 1976; Wilson et al., 1991; Hoffman and Kugle, 1992; Davis et al., 1993; Kyriakou and Cheng, 1993; Konopal et al., 1994; Koutselini and Persianis, 2000). However, this finding does not correspond with UK and US research findings that indicate consistency between teachers' attitudes and their relevant classroom

behaviour (Silberman, 1969; Good and Brophy, 1972; Mangano and Allen, 1986; Loadman and Mahan, 1988; Richardson et al., 1991; Johnson, 1992).

It should be noted that this research reported inconsistency between teachers' attitudes and their relevant classroom behaviour, but it did not provide evidence that teachers applied in their classroom behaviour that was opposite from what they thought (e.g., favour fair inequalities educational equality in theory and apply liberal egalitarian educational equality in classroom practice). Relevant research findings discussed in this thesis (see Chapter II, section ii. b) indicated similar patterns (Ekstrom, 1976; Wilson et al., 1991; Hoffman and Kugle, 1992, Davis et al., 1993; Kyriakou and Cheng, 1993; Konopal et al., 1994; Koutselini and Persianis, 2000). That is, teachers did not apply their theoretical preferences, but this inconsistency did not allow the researchers to explicitly state what the teachers applied in their classroom behaviour. Other research findings indicated significant positive associations between teachers' attitudes and their classroom behaviour (Silberman, 1969; Good and Brophy, 1972; Mangano and Allen, 1986; Loadman and Mahan, 1988; Richardson et al., 1991; Johnson, 1992), implying that teachers applied their attitudes into classroom behaviour. However, only half of the research findings included classroom observations (Silberman, 1969; Good and Brophy, 1972; Loadman and Mahan, 1988). The rest of the research findings (Mangano and Allen, 1986; Richardson et al., 1991; Johnson, 1992) did not include classroom observations, which results in a weak in terms of their methodological validity.

iii. Interpretations of the findings

This research offers two major findings. Firstly, the majority of Greek teachers favoured, in theory, the models of fair inegalitarian and strict egalitarian educational equality. Secondly, that Greek teachers did not apply their positive attitudes towards the fair inegalitarian and strict egalitarian models of educational equality in their classroom behaviour, but applied the liberal egalitarian model of educational equality.

a. Why the majority of Greek teachers favoured in theory the fair inegalitarian and strict egalitarian models of educational equality?

There are two main reasons for explaining why Greek teachers favoured in theory the fair inegalitarian and strict egalitarian models of educational equality. These reasons are outlined below:

(a) Influential educational theories.

The most obvious reason seems to be that Greek teachers, owing due their profession, are familiar with psycho-pedagogic humanistic views, which - among other things - favour the fair inegalitarian model of educational equality. Greek teachers, knowing which are the most cherished views about educational equality, should espouse these views and therefore included it in the answers they gave. Favouring the fair inegalitarian and strict egalitarian models of educational equality should be expected. Even the teachers that did not espouse these views did not want to show that they did not know that these views are supported by eminent psycho-pedagogic humanistic theorists (Murray, H. A., 1938; Festinger, 1957; White, 1959; Berlyne, 1964; Murray, E. J., 1964; Maslow, 1970) (see Chapter I, section ii).

(b) Social psychology theories.

Furthermore, the concentration of Greek teachers' attitude on the fair inegalitarian and strict egalitarian models of educational equality can be explained by the 'social dynamic theory' (Festinger, 1957). As members of the same school, teachers might influence each other to choose the 'educationally accepted values', that is the educational values that are considered the most important by experts in the educational profession. It is not considered 'educationally accepted' - especially for a teacher - to say that he or she prefers to pay more attention to pupils without difficulties and therefore reveal a positive stance to the liberal egalitarian model of educational equality.

Social psychology theory provides theoretical support to this interpretation of teachers' attitudes. Festinger (1957) proposed a theory that people need with compare themselves to others to evaluate their abilities and opinions. When a discrepancy or inconsistency exists between one person's position and that of another, the individual moves towards the normative position, which is influenced by the group norm (Zimbardo et al. 1977). Triandis (1971), argued that attitudes involve what people think, feel and how they would like to behave according to social norms, habits and expectancies. Ajzen and Fishbein (1980) also argued that people's attitudes depend on the nature of the environmental reinforcements they receive. In the case of the Greek teachers included in this research, it could be that when completing the questionnaire, teachers may have chosen those answers that they thought more acceptable to the majority and did not want to take the risk of supporting an attitude that is not 'educationally accepted'. Social psychologists', Wetherell (1987), Liu and Latane (1998), Fox and Irwin (1998) and Mullin and Hogg (1999) also justify the interpretation of Greek teachers' attitudes favouring the fair inegalitarian and strict egalitarian models of educational equality. They argue that people do not want to 'risk' of supporting an attitude that is not 'socially accepted' and so their attitudes are 'polarised' ('risk communication' and 'group polarisation' theory). Furthermore, people tend to receive significant influence when they belong to a group and they tend to agree with

the average attitude of the group ('dynamic social impact theory').

b. Why there was inconsistency between Greek teachers' attitudes and their relevant classroom behaviour?

There are four main reasons that explain the inconsistency between teachers' attitudes and their relevant classroom behaviour. These reasons are outlined below:

(a) The increasing demands of the Greek teaching profession.

A complete understanding of the process of teaching is not possible without an understanding of the constraints and opportunities that emerge within the teaching process (Clark and Peterson, 1986). Teachers' actions are often constrained by external influences such as the school, the principal, the community, or the curriculum (Kyriakou and Stephens, 1999; Clark and Peterson, 1986). Teachers often have less flexibility and opportunity to engage in planning and decision-making because certain curriculum decisions have already been made by the school district or by the principal and in the case of the Greek teachers, by the Pedagogic Institute and the Ministry of Education. Alternatively, other principals may give teachers more flexibility and opportunity to engage in planning and decision-making. Teachers in the UK are becoming increasingly anxious by additional demands put on them by educational reforms in the National Curriculum (Osborn and Pollard, 1992). For Greek teachers excessive demands are being made on their time coupled with a low standing in society, adverse publicity in the media (Spyropoulos, 1990), as well as the perceived change in the teachers' role from being centred on children to being centred on curriculum, assessment and managerial issues. These factors can lead to the loss of many qualified and experienced teachers (Freiderikou, Folerou-Tserouli, 1991; Pirgiotakis, 1992). It appears that the increasing demands of the teaching profession can explain the non-significant association between teachers' attitudes and their relevant classroom behaviour.

(b) Statistical research limitations.

Inconsistency between the majority of teachers' attitudes to educational equality and their relevant classroom behaviour revealed that teachers did not apply the models of fair inegalitarian and strict egalitarian educational equality in their classroom practice. Particularly, the association between teachers' attitudes and their interactions with pupils in class was neither positively nor negatively statistically significant. If the associations were positively statistically significant, it would imply that teachers applied the models of fair inegalitarian and strict egalitarian educational equality in their classroom behaviour. Conversely, if the associations were negatively statistically significant, it would imply that teachers applied the model of liberal egalitarian educational equality in their classroom behaviour.

However, teachers' attitudes were not normally distributed, but 'polarised', concentrating on one answer only, especially teachers' attitudes to educational opportunity, feedback and rewards (see Chapter V, section vii, a). For example, in educational opportunity out a total of forty-two teachers, thirty-eight favoured the model of fair inegalitarian equality, leaving only four teachers favouring the strict egalitarian model. Therefore, a comparison between the two groups of teachers in relation to their relevant interactions with their pupils in class was problematic due to sample limitation.

(c) The three-component view of attitudes.

The three components view of attitudes implies that attitudes contain affective elements (evaluative feelings), cognitive elements (opinions) and behavioural elements (statements of intent) [see Chapter II, section i, a, (a)]. The relationship between these elements is unclear (Kiesler, 1969). This ambiguity allows attitude theorists either to treat attitudes as internally consistent structures, or as clusters of essentially distinct elements. If one finds an apparent discrepancy between attitudes and behaviour, it could be because one is dealing with distinct elements and any complete description of a

person's attitude requires that measurements of all three classes of responses should be obtained, and not simply infer attitudes from one element. According to Cohen (1980), attitudes have affective, cognitive, and behavioural dimensions, and although expressed attitudes may not always be totally consistent with behaviour or internal feelings, they nonetheless provide an estimate of person's attitudes and an indication of their possible behaviours. Following from this, in the case of Greek teachers included in this research, their attitudes included their behavioural intentions that were difficult to take into account. Though the questionnaire used in this research concentrated on the evaluative and cognitive element of the attitude [see Chapter II, section i, a, (a)], it appears that the attitude's behavioural element was significant enough to distort the association between Greek teachers' attitudes and their relevant classroom behaviour.

(d) Conflicts between Greek teachers' theories in action and theories in use.

As mentioned in Chapter I, section iv, there is an important distinction between teachers' theories of action and theories in use, or to put it more simply, between teachers' attitudes and their classroom behaviour (Argyris and Schon, 1974). Often there is a conflict between these two theories, which results in inconsistency between teachers' attitudes and their classroom behaviour, despite teachers' strategies to maintain a balance. Greek teachers in this research may have used two kinds of strategies in order to balance their theories in action and theories in use in order to apply in classroom practice a mixture of the fair inegalitarian and strict egalitarian models of educational equality that they favoured in theory. These strategies as follows:

(1) some Greek teachers tried to keep their theories in action separate and distinct from their theories in use, never allowing them to meet. Greek teachers used the language of one theory and they acted in the language of another, maintaining the illusion of congruence through systematic self-deception, and (2) some Greek teachers subtly acted in to make a self-fulfilling prophecy of their threatened theory in use. For example, as mentioned

in Chapter IV table IV, iii. f (p. 159), Greek teachers identified some of their pupils as having difficulties. Some of the teachers might have communicated their expectations so that the identified pupils would behave as having difficulties; they tested their theories in use about these pupils have difficulties by asking them questions that elicit wrong answers. The longer teachers interacted with these pupils, the more their teachers' theories in use were confirmed. This so-called testing brings teachers' theories' in use closer with their theories' in action, confirming that these pupils had difficulties.

These two strategies aimed to maintain Greek teachers' theories in use in the face of emerging conflicts with their theories in action. However, gradually these conflicts became unavoidable and resulted into inconsistency between teachers' attitudes and their classroom behaviour.

In summary, the inconclusive results of the association between teachers' attitudes and their classroom behaviour were expected because: (1) the espoused educational theory and practice are unmatchable, (2) it is difficult to specify if most of teachers' classroom behaviour corresponded to their attitudes as they usually have not an exclusive meaning and there are imponderable factors which interfere. Therefore, it is difficult to identify and select pairs of corresponding items from theory and practice, and analysis for any statistical association between them. The aim of the researcher was to contribute to the search for measurable teachers' classroom behaviour corresponding to their attitudes.

c. Why Greek teachers applied the liberal egalitarian model of educational equality in their classroom behaviour?

It has been established that the association between teachers' attitudes and their relevant classroom behaviour was not significant. By analysing teachers' classroom behaviour (teachers-pupils classroom interactions) it was concluded that teachers interacted more with pupils without difficulties, which implies that they applied the liberal egalitarian model of educational equality. There are four main reasons explaining why Greek teachers applied the liberal

egalitarian model of educational equality in their classroom behaviour. These reasons are outlined below:

(a) Traditional Greek teaching, lack of Greek teachers' training and professionalisation.

There is empirical evidence based on the researcher's observations (see Chapter III, section iii), that Greek teachers followed traditional approaches within their classrooms. This has resulted from the underlying tradition of authoritarianism and scholasticism of Greek teachers; many Greek teachers unconsciously follow the example of their teachers in their own classroom (Hopf and Hatzichristou, 1999). The researcher's impression, from his observations of Greek classrooms, was that these classrooms were no different to those he experienced as a pupil two decades ago, and from those depicted in the Histories of Greek Education referring to the 1950s. Teachers usually follow the traditional method of instruction and learning by heart that is mainly used (Papamathaiou, 2001 ⁴). The majority of teachers assign the same homework to all pupils. Primary school teachers do not have to mark pupils' everyday assignments; however in classroom practice most of them do so due to pressures, mainly from pupils' parents.

The characteristics of traditional teaching appear more marked in secondary school teachers because they have had different training from their primary school colleagues (see Chapter III, section i). Secondary teachers mark pupils' verbal performance, homework assignments and written examination papers; what weighs most on them is pupils' performance and adherence to the school rules (Kaila and Theodoropoulou, 1997). Lack of training and professionalisation amongst Greek teachers- especially secondary teachers - may also explain why teachers applied the liberal egalitarian model of educational equality in their classroom behaviour.

⁴ To Vima, 21/10/01 (in Greek).

(b) Greek educational legislation.

The translation of Greek teachers' attitudes into everyday classroom practice faces various difficulties. Teachers holding clear views, whether fair inequality, strict egalitarian or liberal egalitarian, face obstacles from the Greek educational legislation that refers to the three conflicting models of educational equality, fair inequality, strict egalitarian and liberal egalitarian (see Chapter III, section i). Teachers who espouse the fair inequality or strict egalitarian models would have problems with the statutory provisions for marking, repetition of the same class, and public acknowledgement for those who come first in scholastic achievement. On the other hand, teachers who espouse the model of liberal egalitarian educational equality would have problems with the statutory provisions for compensatory teaching for pupils with difficulties, if demanded of the ordinary class teacher and in primary schools with the suggestion not to mark pupils' assignments. There are also provisions with ambiguous meaning such as fostering the 'necessary' pedagogic climate inside the classes. It is not clear, for example if the use of competition and marking are among the constituents of the pedagogic climate. In such cases the teachers interpret the provisions as they wish. They can even disregard or circumvent the statutory provisions if they think they contradict their attitudes with a sanctioned tradition or the public opinion. For example, considering in Greece there is parental pressure on teachers to give their pupils more homework as it is believed that it will improve pupils' academic level (Katakis, 1984) - teachers are forced to give a lot of homework to their pupils and disregard the legislation concerning the amount of homework given to pupils.

(c) Greek contextual school factors.

As mentioned in Chapter II, section ii, c, (d), teachers' attitudes are influenced by the varying psychological, social and environmental realities of their schools that either create opportunities for or constrain teachers from implementing their attitudes in their instructional decision-making (Duffy, 1982; Duffy and

Anderson, 1984; Thomas, 1985; Duffy and Ball, 1986; Feiman-Nemser and Floden, 1986; McNamara, 1986; Wheldall and Glynn, 1989; Paris et al., 1991; Roehler and Duffy, 1991; Davis et al., 1993; Smith and Laslett, 1993). In the case of Greek teachers, their competence in class management and ability to deal with pupils with difficulties influenced their attitudes to keep pupils with difficulties in their class. On the other hand, the majority of Greek teachers based their instructional decisions on classroom realities, such as classroom management and routine, and the attention needed for attending the needs of both pupils with and without difficulties (Freiderikou, Folerou-Tserouli, 1991). Classroom reality forced Greek teachers to be pragmatic in their classroom behaviour and they acknowledged that it is difficult to maintain a balance between different pupils' needs (Riga, 1997). Hence Greek teachers focused on pupils without difficulties - despite their theoretical intentions to the opposite - because classroom realities forced them to do so. Teachers that recently started teaching after having undergone teaching training may also focus on pupils without difficulties. As Loadman and Mahan (1988), Kyriakou and Cheng (1993) and Koutselini and Persianis (2000) have suggested, it is likely that student teachers have an ideal and humanistic view concerning teaching during their training, but when they start teaching in schools they realise the tensions between humanistic ideals and the realities of classroom life (see Chapter II, section ii, b).

(d) The market approach of differentiation to Greek education.

It appears that the Greek educational system is moving towards the market approach of differentiation to education⁵. There is not as much diversification in Greek schools as there is in the UK; however, public opinion and parental pressure in Greece is progressively conducting an assessment of education primarily from pupils' academic results. Nowadays, an average middle class Greek family is more likely to consider sending their children to a private school over the compulsory state school (Georgas, 1989). The dominant belief is that private schools do better, even though they follow the same curricula as

⁵ For more about the market approach in differentiation to education, see Chapter I, section iii, b.

the state schools (Katsikas and Kavadias, 1994). The typical Greek family is intensely involved in the education of their children. Greek parents place a lot of emphasis on the education of their children. Education is traditionally believed to be something that is 'socially beneficial' and the only means to developing self and family (Gari and Kalantzi-Azizi, 1998). Thus much pressure for scholastic achievement is exerted on children and academic success is connected to social elevation of aspiring families (Katakis, 1984; Kossuvaki, 1997). Besides helping with homework, to the extent they can, most Greek parents pay for private tutoring or private coaching classes and other extra-curricular lessons, such as foreign languages, piano, ballet and gymnastics (Hopf and Hatzichristou, 1999). Under these conditions, pupils' working hours exceed those of adults, and their right to leisure time is restricted (Karlatira, 2001) ⁶. In accordance with these trends, the majority of Greek teachers in the compulsory state schools are forced to apply liberal egalitarian principles in their classroom behaviour, despite their opposing theoretical declarations.

An example of an incompatibility between Greek teachers' attitudes and classroom practice, is provided by Freiderikou, Folerou-Tserouli (1991) (see Chapter III, section ii). It was found that the majority of Greek teachers were in favour of the nine-year compulsory education but did not accept the automatic promotion of pupils. This could imply either that they were not aware of the contradiction of the two opinions or that they did not understand the compulsory approach of differentiation to education ⁷. According to Freiderikou, Folerou-Tserouli (1991), nine-year compulsory education is based on all pupils completing the nine grades of schooling in exactly nine years; and this can only be achieved by automatic promotions from one class to the next. This approach is based on educational equality of outcome. Greek teachers expressed a contradictory point of view concerning the meaning of compulsory education and its relation to educational equality of outcome.

⁶ To Vima, 14/11/01. (in Greek)

⁷ For more about the compulsory approach of differentiation to education, see Chapter I, section iii, a.

Despite the fact that Greek teachers theoretically favoured compulsory education, in classroom practice they favoured liberal egalitarian principles like the use of marking and the repetition of class for pupils who did not perform well (Freiderikou, Folerou-Tserouli, 1991). The use of marking may lead to the repetition of class and thus distort the meaning of compulsory education. In the post-war period marking in Greece, owing to the spread of new ideas on motivation outlined by humanistic psychology as well as parental pressure for high marks, was eventually rendered useless as a means of differentiating pupils according to their progress (Katsikas, 1997). Therefore, in most classes, at least in primary schools, the distribution of the marks takes the form of a curve heavily skewed to the right, where the pupils of high and average school records are concentrated. Therefore it appears that the primary utility of marking is reduced to the locating and labelling of the pupils with difficulties who may not be able to progress to the next class, maybe required to repeat classes. Nowadays there are less repetitions, at least in primary schools, yet, given that school education is compulsory up to the age of sixteen, according to Law 1566/1985, article 2, paragraph 3, (Greek Ministry of Education, 1985), failures are likely to be among the early school leavers who have not the time nor the courage to complete the nine years of this education intended for all. The total number of early school leavers, between the first grade of primary school and the third grade of secondary school is about fifteen thousand pupils from a total of one hundred and fifty thousands in the first grade, approximately ten percent (Katsikas and Kavadias, 1996). The majority of these pupils come from disadvantaged family backgrounds (Katsikas and Kavadias, 1994; Voudaskis, 1999).

The increasing application of market approach of differentiation to Greek education is the most interesting and significant reason for interpreting why Greek teachers applied the liberal egalitarian model of educational equality. The section below analyses the different models of educational equality - as expressed through teachers' attitudes - and their association with Greek educational legislation and classroom practice.

iv. Development of educational equality models. Conclusions and discussion

The inconsistencies and contradictions hinted in compulsory Greek school education bring to the fore a question of great importance. School education for all pupils is one of the most significant goods achieved by humanity during the last two centuries. Since school education is intended for all children, the question of educational equality comes into play from the start (see Chapter I, section ii). What does educational equality mean: equal opportunities, (equal access to opportunities), equal distributions (of funds, of teachers' time and instructional provisions), or equal outcome (in pupils' and schools' achievements)? Another relevant debate is that of differentiation to education (see Chapter I, section iii), What does differentiation to education mean: education according to the needs of the pupils, according to their hidden potentialities, according to their current abilities? Differentiation in favour of whom: the gifted pupils that constitute a great asset for the community in which they live, or the disadvantaged pupils because of hereditary or environmental reasons? Another important set of questions concerning the translation of educational equality models into classroom practice arises; Do teachers apply their attitudes towards educational equality or not? How are the educational equality models that teachers support in theory translated into their classroom behaviour?

This research revealed that the majority of Greek teachers demonstrated a preference for the fair inegalitarian and strict egalitarian models of educational equality. A minority of Greek teachers favoured a mixture of the strict egalitarian and the liberal egalitarian educational equality models. In classroom practice, Greek teachers showed inconsistency with their expressed attitudes and applied the liberal egalitarian model of educational equality. This section explores the development of models of educational equality and expands on the current thinking about the relationship between the models of educational equality and classroom practice. The figure below describes the models of educational equality as shown from Greek teachers'

attitudes, the Greek educational equality model of the Greek educational legislation and the Greek educational reality and the associations of these educational equality models with classroom practice.

Figure VI: Educational equality models and their association with classroom practice

1. FAIR INEGALITARIAN AND STRICT EGALITARIAN EDUCATIONAL EQUALITY MODEL (based on Greek teachers' attitudes)	2. LIBERAL EGALITARIAN AND STRICT EGALITARIAN EDUCATIONAL EQUALITY MODEL (based on Greek teachers' attitudes)	3. GREEK EDUCATIONAL EQUALITY MODEL (based on Greek educational legislation and school reality)
<p>Differentiation in favour of pupils with difficulties in educational opportunity and respect, homework and task.</p> <p>Emphasis on pupils' effort and social development and school's responsibility for pupils' difficulties.</p> <p>Disagreement with use of competition and marking.</p> <p>Support of the use of individualistic teaching approach and special education in ordinary schools.</p> <p>Emphasis on reducing pupils' differences and mixing-up pupils.</p>	<p>Emphasis on pupils' performance and academic achievement and family responsibility for pupils' difficulties.</p> <p>Agreement with the use of competition and marking.</p> <p>Support of the use of whole class teaching approach and special education in special schools.</p> <p>Emphasis on leaving pupils' differences and separating pupils.</p> <p>In favour of giving the same homework and applying the same discipline rules for all pupils.</p>	<p>Nine-year compulsory school education for all pupils CONTRASTED TO:</p> <p>Repetition of the same class for pupils not having accomplished the minimum standards for promotion.</p> <p>Same curricula, textbooks and teaching approaches in all schools BUT:</p> <p>Increase of pupils attending private schools and private lessons.</p> <p>Suggestion for giving less homework and not marking pupils' assignments IN CONTRAST TO:</p> <p>Parental pressure for more homework and use of marking.</p>

CLASSROOM PRACTICE :

(based on observations of Greek teachers-pupils' interactions)

1. Liberal egalitarian model of educational equality was applied in classroom practice (teachers interacted more with pupils without difficulties).
2. Strict egalitarian model of educational equality was applied only in classroom discipline (teachers disciplined the same pupils with and without difficulties).

The above figure illustrates: first, the development of educational equality models as shown from Greek teachers' attitudes towards educational equality; second the development of Greek educational equality model as shown from Greek educational legislation and Greek school reality; and third, Greek teachers' classroom practice and the association between this practice and teachers' expressed attitudes.

a. Development of educational equality models as shown from Greek teachers' attitudes towards educational equality.

Two mixed educational equality models came out of the Greek teachers' expressed attitudes towards educational equality: (1) in the first of them, the fair inegalitarian and strict egalitarian educational equality models were combined in a way that prioritised meeting the needs of pupils with difficulties and eventually reducing pupils' differences. This is an expected combination of models of educational equality, which does not include highly conflicting values. Conceptually, we would expect to find associations between the fair inegalitarian and strict egalitarian educational equality models. However, the tension created when treating all pupils the same and focusing on pupils with difficulties remains; and (2) in the second teachers' model, the strict egalitarian and liberal egalitarian educational equality models were combined in a way primarily to stress the liberal egalitarian principles and secondly the strict egalitarian principles. The combination of strict egalitarian and liberal egalitarian models is less usual than the combination of the fair inegalitarian and strict egalitarian models as it is not directly conceptually linked. This combination of educational equality models favours pupils without difficulties, since it presupposes that all pupils should be treated the same, but at the same time the structure of the school should be hierarchical and this is how pupils without difficulties can be motivated to achieve what they are capable of.

b. Development of the Greek educational equality model as shown from Greek educational legislation and Greek school reality.

The Greek educational equality model combines the fair inegalitarian, strict egalitarian and liberal egalitarian models of educational equality within its legislation. Educational statutes or parts of the educational equality modes were legislated by a series of governments of different political ideology: liberal, conservative, and socialist, not always in accordance with their ideology. For example, the measure of the automatic promotion from class to class for all pupils in the compulsory educational stage was enacted by a conservative government. This measure has had an interesting 'history' in the

hands of the various Greek governments: the socialists maintained and forwarded it; the conservatives that had introduced it abolished it; and the same socialists that maintained and forwarded it did not bring it back, confining themselves to make the prohibitive terms of the original conservative measure more elastic. It seems that those responsible for the governmental educational policy have not always had clear views about the model of educational equality they wish to set in practice.

Based on the discussion above on educational equality models three points can be made:

(a) teachers' espoused educational equality models, as they come out of their expressed attitudes towards educational equality, contain conflicting and often contradictory elements. This confirms the starting assumption of this research that assumed that there is no consistent theoretical framework of attitudes (Heath, 1986; Thompson, 1986; Siegel, 1987; Billig et al., 1988; Norwich, 1996, 1, 2; 2000). Teachers' espoused educational equality models try to avoid, or at least to temper, tensions between equality and values such as belonging, individualism, liberty, excellence and quality, which were addressed in the Introduction of the thesis (Husen, 1975; Cohen and Neufeld, 1981; Powell et al., 1985; Labaree, 1986, 1988; Ainscow and Muncey, 1989; Bierlein, 1993; Norwich, 1993, 1994, 2, 1996; Lindsay and Thompson, 1997; Lunt, 1997; Osborne, 1997). The model of strict egalitarian and fair inequalitarian educational equality tries to avoid the tensions between equality and other values by including all pupils at the same school and differentiate according to their own needs -especially pupils with difficulties' needs. In other words, this model uses a compulsory approach of differentiation to education. In this model the value of liberty is most restricted, since it does not involve parental school choice. On the other hand, the strict egalitarian and liberal egalitarian model of educational equality is based on the assumption that different pupils should be attended in different school settings. This model uses the market approach in differentiation to education as it provides the same opportunities to all pupils and expects that the more able pupils will

advance further. In this model the value of belonging is most restricted as it does not involve the inclusion and integration of pupils with difficulties.

(b) there is debate over the appropriateness of the educational equality models in western states like the UK (Lunt and Norwich, 1999). This is reflected in UK's educational legislation (Riley, 1994; Lindsay, 1997), which tries to combine and meet conflicting values. The Greek educational equality model presented here is an example of a western state that includes conflicting strict egalitarian, liberal egalitarian and fair inegalitarian educational principles in its legislation. However, a particularity of the Greek educational equality model is that it is not only based on conflicting educational legislation, but also on an inconsistency between the legislation and the Greek educational reality. The Greek compulsory educational system applies strict egalitarian educational principles (nine-year compulsory education and use of same curricula, textbooks and teaching approaches in all schools), whereas evidence suggests that the modern Greek society tends to favour the market approach of differentiation to education⁸. The primary focus is drawn to pupils' academic achievement and there is pressure on teachers by pupils' parents for results starting from the compulsory educational stage.

c. Greek teachers' classroom practice and the association between this practice and their expressed attitudes towards educational equality.

We have seen that Greek teachers reflected a tendency to apply the liberal egalitarian model of educational equality in their classroom behaviour by focusing on pupils without difficulties. It is important to note that the majority of Greek teachers were inconsistent. They did not apply positive attitudes towards the models of strict egalitarian and fair inegalitarian educational equality in their classroom practice, but they also reflected a preference for the liberal egalitarian model. However, a smaller group of Greek teachers was less inconsistent. In theory, this group of teachers indicated preference for combining the strict egalitarian and the liberal egalitarian models of educational equality (by paying basic attention to all their pupils, using the

⁸ See section iii. d of Chapter VI.

whole class approach, favouring the use of competition, marking, using of special education in special schools, and focusing on pupils' performance). In their classroom behaviour this group mostly interacted with pupils without difficulties and disciplined all pupils the same. Hence, this group of Greek teachers indicated a preference for the strict egalitarian and liberal egalitarian models of educational equality and applied in classroom practice the strict egalitarian and mostly the liberal egalitarian model of educational equality.

From what was discussed above two points can be made:

(a) teachers did not apply their espoused theories of strict egalitarian and fair inegalitarian educational equality, theories that are supposedly cherished by the education profession and considered 'educationally acceptable'. These theories conflict with a dominant set of assumptions that permeate society and dictate how schools should operate to maintain society (Sirotnik and Oakes, 1986). The dominant assumptions relate to the competitive and neo-liberal structure of the western countries, which have increasingly adopted the market approach of differentiation to education (Walford, 2001). The problem is increasing due to uncritical acceptance of these assumptions. By taking an uncritical view, people assume schools are neutral, non-political places that go about the business of educating pupils as best as they can, according to the dominant socio-political beliefs.

Greece is an example of a western country that has a tradition of favouring the strict egalitarian and fair inegalitarian educational principles, but also including elements of liberal egalitarian educational principles (Aulonitis, 2001; Ramfos, 2001) ⁹. As described, this tradition is reflected in the Greek educational legislation and in the majority of Greek teachers' attitudes. However, the Greek educational reality is different. The evidence presented suggests that the Greek public increasingly tends to prefer the market approach of differentiation to education with all its particulars (emphasis on academic achievement and

⁹ An example of this is the abolition of private universities' use in Greece by the State Court ('Ethnos', 02/07/01, in Greek). However, the use of private schools in primary and secondary Greek education is allowed (Kathimerini, 01/11/01, in Greek).

result, and increasing use of private and segregated schools). This reality forces teachers to apply the liberal egalitarian model of educational equality in their classroom behaviour and mostly interact with pupils without difficulties, despite their theoretical declarations to the opposite. Considering this reality, the State has the obligation to declare what kind of educational equality and differentiation is adopted in its constitutional laws on education. In the case of a synthesis of educational equality models it is important to make sure that its components are as compatible as possible and inform teachers how they can apply the revised version into classroom practice. The alternate governments usually come from different political parties and have different and often contrasting views on crucial issues, such as education. Therefore, the political parties of a country ought to seek, in advance, a national consensus on a minimum of principles that guarantee the basic right of education for the new generations.

(b) teachers practice their teaching methods like doctors practice medicine. Teachers have the right to practice their teaching methods in a condition of autonomy and freedom. The question is 'are teachers free to apply in their classroom behaviour the model of educational equality in the same way they apply their teaching methods'? The answer is that they should not be free. Educational equality principles are set by Universal Declarations of Human Rights and State Constitutions (see Chapter I, pp.). The same applies in medicine, doctors have the Hippocratic Oath as their main guideline (see Chapter II, section iii, a). An educational equivalent Hippocratic oath creates a social and moral obligation for teachers to apply educational measures for the benefit of all pupils, according to their own needs and potentialities, so that each pupil is happy and well equipped to confront life. However, the educational equivalent Hippocratic Oath presupposes that teachers should be more sensitive towards pupils with difficulties, since these pupils are most needy. In this way the educational equivalent Hippocratic Oath is closer to the fair inegalitarian axiom expressed by Rawls (1971) (see Chapter I, section i):

'A teacher's care and attention for his or her pupils are to be distributed equally unless an unequal distribution is to the advantage of the least favoured.' (see Chapter I, section ii).

We have seen that the above axiom was not applied in classroom practice, even when the majority of teachers supported it in theory. Does it mean that the education equivalent Hippocratic Oath should be abolished or changed into a liberal and market axiom, which would be as follows:

'A teacher's care and attention for his or her pupils are to be distributed equally unless an unequal distribution is to the advantage of the most favoured'.

The answer is no. Even if the majority of teachers have favoured in theory and have applied in their classroom behaviour the liberal egalitarian model of educational equality, it does not follow that this axiom is the most educationally appropriate. Bernstein (1976) argues that the liberal model is applied in schools in many Western countries today, because schools increasingly focus on functionalistic discourses based on the notion of scientific management, an extremely narrow view that presupposes that organisations and organisational change are rational and technical processes. Therefore, schools are forced to adopt the rationalisation and formalisation principles of bureaucracy. This makes teaching a simple bureaucratic procedure and violates the necessity for enlightened action based on thinking, which presupposes a close linking between educational theory and practice. Thus, separating theory and practice reduces the degree to which teachers can personalise their teaching. Complex work cannot be rationalised and formalised, except in misguided ways that force teachers, according to Mintzberg (1979):

"to play the bureaucratic game - satisfying the standards instead of satisfying the clients."
(p. 377).

Teachers are increasingly delivering prescribed orders, which satisfy bureaucratic needs and not the needs of their pupils. Furthermore, even if

teachers are willing to be critical about their classroom behaviour, they feel trapped and unable to address their problems reflectively. Little attention has been given to the examination of the attitudes on which school theory and practice rest. Instead, attempts at change have concentrated on the development of better educational technologies aiming to meet the standards, not the clients. The centre has moved from satisfying pupils' needs to making schools more effective. Wells et al., (1999) argue that the inconsistency between teachers' attitudes towards the strict egalitarian and the fair inegalitarian models of educational equality and teachers' relevant classroom behaviour is due to the tensions created between different politics of modernity and post modernity. Schools are caught between the politics of modernity, which promised equal access to schooling (strict egalitarian educational equality) and post modernity, where the global economic development and demand pushes toward a more deregulated educational system (liberal egalitarian educational equality) (Marginson, 1999). Educational deregulation favours the market approach of differentiation to education, as it promotes the use of different and segregated schools according to the abilities of the participant pupils (Wells et al., 1999). Teachers have no alternative model of school education to follow and they are forced to alter their classroom behaviour in order to match the market approach of differentiation to education. There is a need to introduce an alternative model of school education in the direction of the fair inegalitarian approach to educational equality; a model on the basis of policy implications that aim to eliminate or at least reduce the inconsistency between teachers' attitudes and their classroom behaviour. The next section introduces an alternative model of school education and suggests policy implications for implementation into school practice.

v. What model of school education? Policy implications

This section is divided into two sub-sections: the first sub-section discusses an alternative model of school education and the second sub-section suggests policy implications and focuses on the Greek education.

a. An 'alternative' model of school education?

According to Skrtic (1991), the western school system mainly functions on an idea of 'naive pragmatism'. 'Naive pragmatism' is a model of analysis and problem resolution premised on an unreflective acceptance of the assumptions that lie behind social and educational practices. 'Naive pragmatism', according to Cherryholmes (1988), is

"socially reproductive, instrumentally and functionally reproducing accepted meanings and conventional organisations, institutions and ways of doing things for good or ill."
(p. 151).

It is given that resolving social problems always requires one to be pragmatic, but in a productive way that does not reproduce the existing problems, which requires a critical form of pragmatism, a model of enquiry that accepts the continuous evaluation and reappraisal. Any problems found in schools, especially practical problems in teaching, should be dealt with in terms of critical pragmatism. In using this kind of approach we can: (1) question the inconsistency between teachers' attitudes and classroom behaviour and (2) investigate ways of applying different teaching practices that would promote the fair inegalitarian model of educational equality.

Being 'critically pragmatic' in education includes recognising that market approach of differentiation to education cannot be applied in school practice. Choosing a school for a child is not like using a hotel or a supermarket. If a hotel or a supermarket customer is not satisfied with the services offered, he or she will not use it again. Schools and education are different. The quality is

not immediately evident, it takes time for any judgement to be made and it is difficult for the customer (parents and children) to change schools. Furthermore, schooling is unlike a consumer product because there are multiple consumers who make multiple demands on schooling and also benefit from particular forms of schooling. Most importantly, education is not for individual benefit where quality can be judged solely in terms of the individual preferences of the person who is educated (Ball, 1994). Education is essentially a social and moral affair, it is an activity in which an individual lives in society, is essentially involved. The merit of the idea of a market in schooling is that schools serve multiple purposes and concerns. This reminds us that one of the most important customers for schooling is the society as a whole as well as parents and children (Walford, 2001). This leads us to recognise that a revised conception of quality must focus on the social aspects of schooling (Ball, 1990).

Thus, a conception of quality is needed that is broader than the conventional market model. Whilst quality in schooling should include an emphasis on academic and other forms of individual self-assessment, it must also include ways in which schools can encourage children to take part in society as active citizens. Schools should teach children to respect individual differences and promote proper socialisation. Proper socialisation presupposes that the individual's self-fulfilment and happiness reflects the satisfaction gained from his or her contribution to the fulfilment and happiness of the others. This is the basis of ethics not of return ('you did it for or to me, I will do it for or to you') or anticipation ('I will do something for you, so that you will do the same for me') but of benevolence that is driven by an intrinsic motive of the satisfaction of seeing the beneficial results of the offering to others. In more negative terms, the socialisation of an individual cannot be to the disadvantage of the socialisation of the others.

Schools should challenge the naive pragmatic idea that social stratification is natural. Rather than fostering and justifying inequality, schools should be 'critically pragmatic', challenging inequality and acting for its reduction. To do

so, schools should balance the social inequalities arising from the market system, expand opportunities for all people, liberate the mind and prepare children for participation in a democratic political process. Hence, education should be a means to democracy (Dewey, 1955; Giroux, 1988; Apple, 1993). Democratic education can ensure that all pupils are included in the socialisation process and fulfil the need of each pupil to be a participating member of a valued social good, relating with other pupils in schools and classes. Nobody should be excluded from this procedure and if so, it is for the interest of all to try and change it. Democratic education aims at transforming society's individualism toward a sense of solidarity.

To quote John Dewey:

"The school is primarily a social institution. Education being a social process, the school is simply that form of community life in which all these agencies are concentrated that will be most effective in bringing the child in the inherited resources of the race, and to use his [her] own powers for social ends".

"I believe that education (...) is a process of living and not a preparation for future living."

(pp. 86-87), (1972).

b. Policy implications from a 'critically pragmatic' point of view.

According to Edwards (2000), the suggested policy implications are directed where educational policy and practice can be improved. This research identifies reflection on teaching and teachers' training as two areas that can be improved. Being 'critically pragmatic' questions what kind of practical implications applied in schools in order to challenge the naive pragmatic assumption that a market approach to education is inevitable and can introduce an alternative school model, analysed in the above sub-section. For suggesting, however, any implications, one should take into account the practical difficulties of the everyday school life. One potential avenue is through reflection on teaching (Schon, 1983). Reflection on teaching implies

that teachers have to make explicit their theories in use and explain the problems they are facing in not being able to apply their theories into their classroom behaviour.

Reflection on teaching involves looking back as well as looking ahead in the considerations of how teachers think in action and how they use their knowledge in situations of practice (Grimmett, 1988; Shulman, 1988). Reflection on teaching lies at the heart of what is meant by becoming efficient and skilled teachers and requires a combination of reflection on theoretical understanding and practical experience. In other words, emphasis is given not only to increase consistency between teachers' attitudes and classroom behaviour, but also to encourage teachers to reflect both on their attitudes and their classroom behaviour. Voudaskis (1999) and Milonas and Dimitriadi (1999) argue that Greek teachers unconsciously promote social inequality by favouring pupils without difficulties in their classroom behaviour. Teachers are not to be blamed, but their classroom behaviour plays an important and unconscious role in maintaining injustice and inequality in society (Katsikas, 2001) ¹⁰. Reflection on teaching can help Greek teachers become critical of that and explore ways of changing their classroom behaviour towards a fair inegalitarian approach. Reflection on teaching applies to two groups of Greek teachers identified in this research: (1) inconsistent teachers and (2) consistent teachers. Inconsistent teachers favoured in theory the fair inegalitarian and strict egalitarian models of educational equality and applied in their classroom behaviour the liberal egalitarian model of educational equality. Reflection on teaching can help these teachers become aware of this inconsistency and change their classroom behaviour towards a fair inegalitarian approach. Consistent teachers applied their liberal egalitarian attitudes towards educational equality into their classroom behaviour, but this does not mean that these teachers fulfil their educational role. Reflection on teaching can increase Greek teachers' awareness that both their attitudes towards educational equality and their classroom behaviour are not compatible with the relevant educational declarations, legislation and theories. This

¹⁰ 'Kathimerini', 21/10/01 (in Greek)

awareness may enable them to change their espoused theories of educational quality and eventually change their classroom behaviour towards a fair egalitarian approach.

Fenstermacher (1986) argues that reflection on teaching can bring together theory and practice if: (1) it permits a wide range of scientific research programmes to affect on teacher classroom practice, (2) it includes a conception of the teacher as thinking, complex agent, rather than as an automation who simply puts the findings of research in classroom practice, and (3) it permits conceptions of teaching and teacher education that make use of theories of education. These conditions, though theoretical, can be put into practice in schools with the co-operation of all those who are involved in education (curriculum organisers, school administrations, educational planners, school psychologists, school teachers, parents and pupils). Furthermore, as Everton et al. (2000) argue, if research is to influence classroom practice, then it is vital that teachers are given extended opportunities for further professional study alongside those teachers who are already conducting research.

Reflection on teaching can be useful to Greek teachers, both those of primary and secondary schools, as there is potential that it will help them to realise the need for self reflection and knowledge by pondering on such crucial questions that concern their educational job. Reflective teachers are more creative and indispensable to education, all the more when new educational measures should be put into school practice (Starida, 1995).

The implications of reflection on teaching can be put into practice in the Greek educational context in initial and in-service teachers' training and education. During initial training all students who intend to teach in schools could receive adequate educational and psychological training (Mpampiniotis, 2001)¹¹. This issue is important in Greece, since only the minority of students (those who study in Schools of Philosophy, Education, Psychology or Sociology) seem to

¹¹ To Vima, 21/10/01 (in Greek).

be adequately trained in these subjects, while all the rest have little training. This problem seems to be resolved with the recent educational reforms that aim at introducing a continuous compulsory nine-year educational system, with common curricula and educational aims (Theodorakis, 2001) ¹². Until now, the compulsory Greek education consisted of two separate stages, the primary and the secondary. The separation created several inconsistencies between these two stages, for example primary and secondary teachers having different expectations from their pupils and applying different teaching methods. Differences between primary and secondary Greek compulsory education were highlighted in this research by the significant differences found between primary and secondary teachers' attitudes towards educational equality. This finding is of considerable importance, since it emphasises the fact that the meaning of the continuous nine-year compulsory Greek education is distorted and therefore some changes are needed. Another suggestion is that after initial training, teachers could be helped to reflect on their teaching methods and ways of dealing with the problems they face by organising discussion groups with other teachers and seeking advice from school counsellors and psychologists.

vi. Stimulation for further thinking and research

This section deals with ways of furthering the research further. To start with, it would be interesting to apply this research in different national contexts. In the European Union especially, a comparison between findings concerning teachers' attitudes and their classroom behaviour in different European countries would promote European educational integration. Teachers in different countries perceive educational equality in different ways and the extent of its application to their classroom behaviour varies. The research can use the same methodology and data collection tools, but it will adjust their use according to the particularities of different educational contexts.

¹² Interview of the Greek Minister of Education, Petros Euthimiou, 09/09/01, *To Vima. Vimagazino*, Vol. 48, pp. 16-21. (in Greek)

Further research can also be conducted in different educational contexts to examine possible differences between primary and secondary teachers' attitudes towards educational equality. This research has provided evidence that suggest that the school type influenced Greek teachers' attitudes towards educational equality. Among suggested interpretations of this finding, most interesting was the different training that Greek primary and secondary teachers received. It would be interesting to investigate the extent to which such a difference between primary and secondary teachers' attitudes applies in different educational contexts and is associated with teachers' training.

Another issue that needs further exploration, is the extent of spatial differentiation to education. This research has provided evidence, which suggest that the type of school region influenced Greek teachers' attitudes towards educational equality. Does this imply that spatial differentiation to Greek education is increasing? What are the differences between schools in 'developed' and 'less developed' regions? How do the teachers who work there interpret these differences? Spatial differentiation to Greek education can be also examined by comparing public and private school teachers' attitudes and their classroom behaviour. Are there any differences between them and if so, what kind? How about parents' opinions and expectations from the schools? What kind of expectations do they have from schools from different regions, public and private?

Two more stimulations for future research would be:

(1) to investigate the condition of educational equality in Greek schools today after the inflow of immigrants. Till recently, Greece was a nation of migration to other countries, and, among other things, it has faced problems concerning the education of the Greek immigrants' children abroad. Now the picture has been changed, and an equivalent problem is the school education of the children of the foreign immigrants who attend mixed Greek schools. Other European countries have admitted foreign immigrants on legal terms a few decades ago, but they too experience this phenomenon of anarchic migration.

However, in those countries there has been research and treatises on the education of the immigrants' children inside their own schools or in separate ones. It is now the turn of Greek researchers to investigate how and to what extent the principle of educational equality is implemented in mixed Greek schools and to compare their findings with those of their European colleagues; and (2) to investigate the extent to which the perceived quality of schooling is a push migration factor and to what extent it is a pull migration factor (Dobson and Stillwell, 2000). In other words, how important a factor is schooling for parents' decisions to change home and send their children to another school that they think is 'better'? How does this residential migration of children relate to school admission, exclusion and transfer? Does residential migration of children create school communities, which differ radically from one another both within and between different localities and result to increasing socio and spatial polarisation? What is the level of socio and spatial polarisation between different school communities in Greece and in other countries in the European Union?

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APPENDIX

i. Questionnaire four reliability tables.

school aims * school aims Crosstabulation

			school aims		Total
			a	b	
school aims	a	Count	29	14	43
		% of Total	11.6%	5.6%	17.2%
	b	Count	7	200	207
		% of Total	2.8%	80.0%	82.8%
Total		Count	36	214	250
		% of Total	14.4%	85.6%	100.0%

91.6% of teachers were consistent in their responses concerning school aims.

teaching approaches * teaching approaches Crosstabulation

			teaching approaches		Total
			a	b	
teaching approaches	a	Count	130	13	143
		% of Total	51.2%	5.1%	56.3%
	b	Count	8	103	111
		% of Total	3.1%	40.6%	43.7%
Total		Count	138	116	254
		% of Total	54.3%	45.7%	100.0%

91.8% of teachers were consistent in their answers concerning teaching approaches.

special education * special education Crosstabulation

			special education		Total
			a	b	
special education	a	Count	41	76	117
		% of Total	16.1%	29.9%	46.1%
	b	Count	5	132	137
		% of Total	2.0%	52.0%	53.9%
Total		Count	46	208	254
		% of Total	18.1%	81.9%	100.0%

68.1% of teachers were consistent in their answers concerning use of special education.

causes * causes Crosstabulation

			causes		Total
			a	b	
causes	a	Count	189	17	206
		% of Total	75.9%	6.8%	82.7%
	b	Count	11	32	43
		% of Total	4.4%	12.9%	17.3%
Total		Count	200	49	249
		% of Total	80.3%	19.7%	100.0%

88.8% of teachers were consistent in their answers concerning environmental causes of pupils' difficulties.

Competition * competition Crosstabulation

			competition		Total
			a	b	
Competition	a	Count	60	31	91
		% of Total	24.0%	12.4%	36.4%
	b	Count	24	135	159
		% of Total	9.6%	54.0%	63.6%
Total		Count	84	166	250
		% of Total	33.6%	66.4%	100.0%

78% of the teachers were consistent in their answers concerning use of competition in class.

outcome * outcome Crosstabulation

			outcome		Total
			a	b	
outcome	a	Count	33	12	45
		% of Total	13.1%	4.8%	17.9%
	b	Count	66	140	206
		% of Total	26.3%	55.8%	82.1%
Total		Count	99	152	251
		% of Total	39.4%	60.6%	100.0%

68.9% of the teachers were consistent in their answers concerning educational outcome.

opportunities * opportunity Crosstabulation

			opportunity		Total
			a	b	
opportunities	a	Count	42	18	60
		% of Total	16.3%	7.0%	23.3%
	b	Count	2	196	198
		% of Total	.8%	76.0%	76.7%
Total		Count	44	214	258
		% of Total	17.1%	82.9%	100.0%

92.3% of the teachers were consistent in their answers concerning educational opportunity.

respect * respect Crosstabulation

			respect		Total
			a	b	
respect	a	Count	33	7	40
		% of Total	12.7%	2.7%	15.4%
	b	Count	1	218	219
		% of Total	.4%	84.2%	84.6%
Total		Count	34	225	259
		% of Total	13.1%	86.9%	100.0%

96.9% of the teachers were consistent in their answers concerning educational respect.

feedback * feedback Crosstabulation

			feedback		Total
			a	b	
feedback	a	Count	3	6	9
		% of Total	1.2%	2.3%	3.5%
	b	Count	8	241	249
		% of Total	3.1%	93.4%	96.5%
Total		Count	11	247	258
		% of Total	4.3%	95.7%	100.0%

94.6% of the teachers were consistent in their answers concerning feedback given to pupils.

teachers' rewards * teachers' rewards Crosstabulation

			teachers' rewards		Total
			a	b	
teachers' rewards	a	Count	8	17	25
		% of Total	3.1%	6.7%	9.8%
	b	Count	11	218	229
		% of Total	4.3%	85.8%	90.2%
Total		Count	19	235	254
		% of Total	7.5%	92.5%	100.0%

88.9% of the teachers were consistent in their answers concerning kinds of rewards given to pupils.

Marking * marking Crosstabulation

			marking		Total
			a	b	
Marking	a	Count	110	37	147
		% of Total	43.0%	14.5%	57.4%
	b	Count	25	84	109
		% of Total	9.8%	32.8%	42.6%
Total		Count	135	121	256
		% of Total	52.7%	47.3%	100.0%

75.8% of the teachers were consistent in their answers concerning use of marking.

homework * homework Crosstabulation

			homework		Total
			a	b	
homework	a	Count	42	5	47
		% of Total	16.3%	1.9%	18.3%
	b	Count	34	176	210
		% of Total	13.2%	68.5%	81.7%
Total		Count	76	181	257
		% of Total	29.6%	70.4%	100.0%

84.8% of teachers were consistent in their answers concerning kind of homework given to pupils.

grouping * grouping Crosstabulation

			grouping		Total
			a	b	
grouping	a	Count	8	10	18
		% of Total	3.1%	3.9%	7.0%
	b	Count	9	230	239
		% of Total	3.5%	89.5%	93.0%
Total		Count	17	240	257
		% of Total	6.6%	93.4%	100.0%

92.6% of teachers were consistent in their answers concerning pupils' seating arrangements.

discipline * discipline Crosstabulation

			discipline		Total
			a	b	
discipline	a	Count	111	8	119
		% of Total	45.7%	3.3%	49.0%
	b	Count	55	69	124
		% of Total	22.6%	28.4%	51.0%
Total		Count	166	77	243
		% of Total	68.3%	31.7%	100.0%

74.1% of teachers were consistent in their answers concerning pupils' discipline.

tasks * tasks Crosstabulation

			tasks		Total
			a	b	
tasks	a	Count	54	4	58
		% of Total	21.4%	1.6%	23.0%
	b	Count	36	158	194
		% of Total	14.3%	62.7%	77.0%
Total		Count	90	162	252
		% of Total	35.7%	64.3%	100.0%

84.1% of teachers were consistent in their answers concerning assigning a task to pupils.

ii. Observation schedule two reliability tables.

a. Observation schedule two external reliability.

(a) Observation schedule two external reliability concerning teachers' positive comments over three classroom time intervals.

Correlations

			First hour positive interactions per 5 minutes/pupil	Second hour positive interactions per 5 minutes/pupil	Third hour positive interactions per 5 minutes/pupil
Spearman's rho	Correlation Coefficient	First hour positive interactions per 5 minutes/pupil	1.000	.606**	.599**
		Second hour positive interactions per 5 minutes/pupil	.606**	1.000	.639**
		Third hour positive interactions per 5 minutes/pupil	.599**	.639**	1.000
	Sig. (2-tailed)	First hour positive interactions per 5 minutes/pupil	.	.000	.000
		Second hour positive interactions per 5 minutes/pupil	.000	.	.000
		Third hour positive interactions per 5 minutes/pupil	.000	.000	.
	N	First hour positive interactions per 5 minutes/pupil	48	48	48
		Second hour positive interactions per 5 minutes/pupil	48	48	48
		Third hour positive interactions per 5 minutes/pupil	48	48	48

** Correlation is significant at the .01 level (2-tailed).

(b) Observation schedule two external reliability concerning teachers' corrective comments over three classroom time intervals.

Correlations

			First hour corrective interactions per 5 minutes/pupil	Second hour corrective interactions per 5 minutes/pupil	Third hour corrective interactions per 5 minutes/pupil
Spearman's rho	Correlation Coefficient	First hour corrective interactions per 5 minutes/pupil	1.000	.727**	.715**
		Second hour corrective interactions per 5 minutes/pupil	.727**	1.000	.799**
		Third hour corrective interactions per 5 minutes/pupil	.715**	.799**	1.000
	Sig. (2-tailed)	First hour corrective interactions per 5 minutes/pupil		.000	.000
		Second hour corrective interactions per 5 minutes/pupil	.000		.000
		Third hour corrective interactions per 5 minutes/pupil	.000	.000	
	N	First hour corrective interactions per 5 minutes/pupil	48	48	48
		Second hour corrective interactions per 5 minutes/pupil	48	48	48
		Third hour corrective interactions per 5 minutes/pupil	48	48	48

** Correlation is significant at the .01 level (2-tailed).

b. Observation schedule two internal reliability.

(a) Observation schedule two internal reliability concerning teachers' positive comments.

***** Method 2 (covariance matrix) will be used for this analysis *****

**R E L I A B I L I T Y A N A L Y S I S - S C A L E
(A L P H A)**

1. POSFDP5M teacher-pupil posfd. per five minutes and pupil.
2. PREFFP5M teacher-pupil pr.effort per five minutes and pupil.
3. PRPERP5M teacher-pupil praise perform. per five minutes and pupil.
4. ASSP5MP teacher-pupil assign per five minutes and pupil.

		Mean	Std Dev
Cases			
1.	POSFDP5M	.0728	.0286
48.0			
2.	PREFFP5M	.0317	.0309
48.0			
3.	PRPERP5M	.0175	.0174
48.0			
4.	ASSP5MP	.0191	.0171
48.0			

N of Cases = 48.0

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	.1411	.0045	.0673	4

Inter-item	Mean	Minimum	Maximum	Range
Correlations				
Max/Min Variance	.3567	.0050	.6728	.6678
135.5670 .0498				

Reliability Coefficients 4 items

Alpha = .6366 Standardised item alpha = .6893

(b) Observation schedule two internal reliability concerning teachers' corrective comments.

***** Method 2 (covariance matrix) will be used for this analysis *****

RELIABILITY ANALYSIS - SCALE
(ALPHA)

- | | | |
|----|----------|---|
| 1. | CORFDP5M | teacher-pupil corfd. per five minutes and pupil. |
| 2. | CRIP5MPP | teacher-pupil criticise per five minutes and pupil. |

		Mean	Std Dev
Cases			
1.	CORFDP5M	.0654	.0342
48.0			
2.	CRIP5MPP	.0378	.0294
48.0			
N of Cases =		48.0	

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	.1032	.0027	.0524	2

Inter-item	Mean	Minimum	Maximum	Range
Correlations				
Max/Min Variance	.3569	.3569	.3569	.0000
1.0000	.0000			

Reliability Coefficients 2 items

Alpha = .5216 Standardised item alpha = .5261

iii. Repeated anova tests between and within observation categories.

Within-Subjects Factors

Measure: MEASURE_1

FACTOR1	Dependent Variable
1	PFDP5M
2	CFDP5M
3	PREFP5M
4	PRPERP5M
5	CRITP5M
6	ASSP5M

Between-Subjects Factors

	Value	Label
GROUP	1.00	nonLD
	2.00	ld

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.	Noncent. Parameter	Observed Power ^b
FACTOR1	Pillai's Trace	.749	53.679 ^c	5.000	90.000	.000	268.395	1.000
	Wilks' Lambda	.251	53.679 ^c	5.000	90.000	.000	268.395	1.000
	Hotelling's Trace	2.982	53.679 ^c	5.000	90.000	.000	268.395	1.000
	Roy's Largest Root	2.982	53.679 ^c	5.000	90.000	.000	268.395	1.000
FACTOR1 * GROUP	Pillai's Trace	.097	1.939 ^c	5.000	90.000	.096	9.695	.630
	Wilks' Lambda	.903	1.939 ^c	5.000	90.000	.096	9.695	.630
	Hotelling's Trace	.108	1.939 ^c	5.000	90.000	.096	9.695	.630
	Roy's Largest Root	.108	1.939 ^c	5.000	90.000	.096	9.695	.630

a. Design: Intercept+GROUP
Within Subjects Design: FACTOR1

b. Computed using alpha = .05

c. Exact statistic

Mauchly's Test of Sphericity^a

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon ^b		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
FACTOR1	.251	127.217	14	.000	.744	.787	.200

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept+GROUP

Within Subjects Design: FACTOR1

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the layers (by default) of the Tests of Within Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Sphericity Assumed

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power ^a
FACTOR1	.237	5	4.733E-02	63.794	.000	318.970	1.000
FACTOR1 * GROUP	1.191E-02	5	2.383E-03	3.212	.007	16.059	.887
Error(FACTOR1)	.349	470	7.419E-04				

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Transformed Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power ^a
FACTOR1	FACTOR1_1	.146	1	.146	153.870	.000	153.870	1.000
	FACTOR1_2	2.267E-02	1	2.267E-02	32.680	.000	32.680	1.000
	FACTOR1_3	1.718E-03	1	1.718E-03	2.734	.102	2.734	.373
	FACTOR1_4	6.406E-02	1	6.406E-02	57.339	.000	57.339	1.000
	FACTOR1_5	2.411E-03	1	2.411E-03	7.465	.008	7.465	.772
FACTOR1 * GROUP	FACTOR1_1	5.745E-03	1	5.745E-03	6.064	.016	6.064	.683
	FACTOR1_2	1.137E-03	1	1.137E-03	1.639	.204	1.639	.245
	FACTOR1_3	1.611E-03	1	1.611E-03	2.564	.113	2.564	.354
	FACTOR1_4	3.118E-03	1	3.118E-03	2.791	.098	2.791	.380
	FACTOR1_5	3.029E-04	1	3.029E-04	.938	.335	.938	.160
Error(FACTOR1)	FACTOR1_1	8.906E-02	94	9.475E-04				
	FACTOR1_2	6.519E-02	94	6.936E-04				
	FACTOR1_3	5.905E-02	94	6.282E-04				
	FACTOR1_4	.105	94	1.117E-03				
	FACTOR1_5	3.036E-02	94	3.230E-04				

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power ^a
Intercept	.831	1	.831	388.425	.000	388.425	1.000
GROUP	1.556E-02	1	1.556E-02	7.275	.008	7.275	.761
Error	.201	94	2.138E-03				

a. Computed using alpha = .05

iv. Significant associations between teachers' background variables and their attitudes towards educational equality.

a. School region.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
school region * educational outcome	173	66.5%	87	33.5%	260	100.0%
school region * educational respect	251	96.5%	9	3.5%	260	100.0%
school region * pupils' homeworkhomework	218	83.8%	42	16.2%	260	100.0%
school region * use of special education	173	66.5%	87	33.5%	260	100.0%
school region * causes for pupils' difficulties	221	85.0%	39	15.0%	260	100.0%

(a) School region-educational outcome.

Crosstab

			educational outcome		Total
			leave differences	reduce differences	
school region	underdeveloped	Count	14	89	103
		% within school region	13.6%	86.4%	100.0%
		% within educational outcome	42.4%	63.6%	59.5%
		% of Total	8.1%	51.4%	59.5%
	developed	Count	19	51	70
		% within school region	27.1%	72.9%	100.0%
		% within educational outcome	57.6%	36.4%	40.5%
		% of Total	11.0%	29.5%	40.5%
Total	Count	33	140	173	
	% within school region	19.1%	80.9%	100.0%	
	% within educational outcome	100.0%	100.0%	100.0%	
	% of Total	19.1%	80.9%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	4.957 ^b	1	.026		
Continuity ^a Correction	4.118	1	.042		
Likelihood Ratio	4.872	1	.027		
Fisher's Exact Test				.031	.022
Linear-by-Linear Association	4.929	1	.026		
N of Valid Cases	173				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.35.

(b) School region-educational respect.

Crosstab

			educational respect		Total
			equal emphasis	pupils with difficulties emphasis	
school region	underdeveloped	Count	12	120	132
		% within school region	9.1%	90.9%	100.0%
		% within educational respect	36.4%	55.0%	52.6%
		% of Total	4.8%	47.8%	52.6%
	developed	Count	21	98	119
		% within school region	17.6%	82.4%	100.0%
		% within educational respect	63.6%	45.0%	47.4%
		% of Total	8.4%	39.0%	47.4%
Total	Count	33	218	251	
	% within school region	13.1%	86.9%	100.0%	
	% within educational respect	100.0%	100.0%	100.0%	
	% of Total	13.1%	86.9%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	4.012 ^b	1	.045	.061	.034
Continuity ^a Correction	3.298	1	.069		
Likelihood Ratio	4.036	1	.045		
Fisher's Exact Test					
Linear-by-Linear Association	3.996	1	.046		
N of Valid Cases	251				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.65.

(c) School region-homework.

Crosstab

			pupils' homeworkhomework		Total
			same homework	different to pupils with difficulties	
school region	underdeveloped	Count	15	99	114
		% within school region	13.2%	86.8%	100.0%
		% within pupils' homeworkhomework	35.7%	56.3%	52.3%
		% of Total	6.9%	45.4%	52.3%
	developed	Count	27	77	104
		% within school region	26.0%	74.0%	100.0%
		% within pupils' homeworkhomework	64.3%	43.8%	47.7%
		% of Total	12.4%	35.3%	47.7%
Total	Count	42	176	218	
	% within school region	19.3%	80.7%	100.0%	
	% within pupils' homeworkhomework	100.0%	100.0%	100.0%	
	% of Total	19.3%	80.7%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	5.732 ^b	1	.017		
Continuity ^a Correction	4.938	1	.026		
Likelihood Ratio	5.775	1	.016		
Fisher's Exact Test				.025	.013
Linear-by-Linear Association	5.706	1	.017		
N of Valid Cases	218				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.04.

(d) School region-special education.

Crosstab

			use of special education		Total
			special schools	ordinary schools	
school region	underdeveloped	Count	30	70	100
		% within school region	30.0%	70.0%	100.0%
		% within use of special education	73.2%	53.0%	57.8%
		% of Total	17.3%	40.5%	57.8%
	developed	Count	11	62	73
		% within school region	15.1%	84.9%	100.0%
		% within use of special education	26.8%	47.0%	42.2%
		% of Total	6.4%	35.8%	42.2%
Total	Count	41	132	173	
	% within school region	23.7%	76.3%	100.0%	
	% within use of special education	100.0%	100.0%	100.0%	
	% of Total	23.7%	76.3%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	5.203 ^b	1	.023		
Continuity ^a Correction	4.410	1	.036		
Likelihood Ratio	5.405	1	.020		
Fisher's Exact Test				.029	.017
Linear-by-Linear Association	5.173	1	.023		
N of Valid Cases	173				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.30.

(e) School region-Environmental causes for pupils' difficulties.

Crosstab

			causes for pupils' difficulties		Total
			home	school	
school region	underdeveloped	Count	114	11	125
		% within school region	91.2%	8.8%	100.0%
		% within causes for pupils' difficulties	60.3%	34.4%	56.6%
		% of Total	51.6%	5.0%	56.6%
	developed	Count	75	21	96
		% within school region	78.1%	21.9%	100.0%
		% within causes for pupils' difficulties	39.7%	65.6%	43.4%
		% of Total	33.9%	9.5%	43.4%
Total	Count	189	32	221	
	% within school region	85.5%	14.5%	100.0%	
	% within causes for pupils' difficulties	100.0%	100.0%	100.0%	
	% of Total	85.5%	14.5%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	7.496 ^b	1	.006	.007	.006
Continuity ^a Correction ^a	6.478	1	.011		
Likelihood Ratio	7.467	1	.006		
Fisher's Exact Test					
Linear-by-Linear Association	7.462	1	.006		
N of Valid Cases	221				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.90.

b. Type of school.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
type of school * seating arrangements	238	91.5%	22	8.5%	260	100.0%
type of school * educational respect	251	96.5%	9	3.5%	260	100.0%
type of school * pupils' homeworkhomework	218	83.8%	42	16.2%	260	100.0%
type of school * discipline rules	180	69.2%	80	30.8%	260	100.0%
type of school * ways of assigning a task	212	81.5%	48	18.5%	260	100.0%
type of school * teaching approaches	233	89.6%	27	10.4%	260	100.0%
type of school * effects of marking	194	74.6%	66	25.4%	260	100.0%

(a) Type of school-Seating arrangements.

Crosstab

			seating arrangements		Total
			pupils with difficulties sit separately	pupils with difficulties sit mixed-up	
type of school	primary	Count	1	123	124
		% within type of school	.8%	99.2%	100.0%
		% within seating arrangements	12.5%	53.5%	52.1%
		% of Total	.4%	51.7%	52.1%
	secondary	Count	7	107	114
		% within type of school	6.1%	93.9%	100.0%
		% within seating arrangements	87.5%	46.5%	47.9%
		% of Total	2.9%	45.0%	47.9%
Total	Count	8	230	238	
	% within type of school	3.4%	96.6%	100.0%	
	% within seating arrangements	100.0%	100.0%	100.0%	
	% of Total	3.4%	96.6%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	5.202 ^b	1	.023		
Continuity Correction ^a	3.690	1	.055		
Likelihood Ratio	5.756	1	.016		
Fisher's Exact Test				.030	.025
Linear-by-Linear Association	5.180	1	.023		
N of Valid Cases	238				

^a Computed only for a 2x2 table

^b 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.83.

(b) Type of school-educational respect.

Crosstab

			educational respect		Total
			equal emphasis	pupils with difficulties emphasis	
type of school	primary	Count	11	116	127
		% within type of school	8.7%	91.3%	100.0%
		% within educational respect	33.3%	53.2%	50.6%
		% of Total	4.4%	46.2%	50.6%
	secondary	Count	22	102	124
		% within type of school	17.7%	82.3%	100.0%
		% within educational respect	66.7%	46.8%	49.4%
		% of Total	8.8%	40.6%	49.4%
	Total	Count	33	218	251
		% within type of school	13.1%	86.9%	100.0%
		% within educational respect	100.0%	100.0%	100.0%
		% of Total	13.1%	86.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	4.531 ^b	1	.033		
Continuity Correction ^a	3.770	1	.052		
Likelihood Ratio	4.602	1	.032		
Fisher's Exact Test				.040	.026
Linear-by-Linear Association	4.512	1	.034		
N of Valid Cases	251				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.30.

(c) Type of school-Homework.

Crosstab

			pupils' homeworkhomework		Total
			same homework	different to pupils with difficulties	
type of school	primary	Count	14	100	114
		% within type of school	12.3%	87.7%	100.0%
		% within pupils' homeworkhomework	33.3%	56.8%	52.3%
		% of Total	6.4%	45.9%	52.3%
	secondary	Count	28	76	104
		% within type of school	26.9%	73.1%	100.0%
		% within pupils' homeworkhomework	66.7%	43.2%	47.7%
		% of Total	12.8%	34.9%	47.7%
Total	Count	42	176	218	
	% within type of school	19.3%	80.7%	100.0%	
	% within pupils' homeworkhomework	100.0%	100.0%	100.0%	
	% of Total	19.3%	80.7%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	7.496 ^b	1	.006		
Continuity ^a Correction	6.585	1	.010		
Likelihood Ratio	7.581	1	.006		
Fisher's Exact Test				.009	.005
Linear-by-Linear Association	7.462	1	.006		
N of Valid Cases	218				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.04.

(d) Type of school-Discipline.

Crosstab

			discipline rules		Total
			discipline all pupils	tolerant to difficult	
type of school	primary	Count	50	48	98
		% within type of school	51.0%	49.0%	100.0%
		% within discipline rules	45.0%	69.6%	54.4%
		% of Total	27.8%	26.7%	54.4%
	secondary	Count	61	21	82
		% within type of school	74.4%	25.6%	100.0%
		% within discipline rules	55.0%	30.4%	45.6%
		% of Total	33.9%	11.7%	45.6%
Total	Count	111	69	180	
	% within type of school	61.7%	38.3%	100.0%	
	% within discipline rules	100.0%	100.0%	100.0%	
	% of Total	61.7%	38.3%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square ^b	10.315	1	.001		
Continuity Correction ^a	9.350	1	.002		
Likelihood Ratio	10.521	1	.001		
Fisher's Exact Test				.002	.001
Linear-by-Linear Association	10.257	1	.001		
N of Valid Cases	180				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 31.43.

(e) Type of school-Assign task.

Crosstab

			ways of assigning a task		Total
			assign task to all pupils	assign task to pupils with difficulties	
type of school	primary	Count	21	88	109
		% within type of school	19.3%	80.7%	100.0%
		% within ways of assigning a task	38.9%	55.7%	51.4%
		% of Total	9.9%	41.5%	51.4%
	secondary	Count	33	70	103
		% within type of school	32.0%	68.0%	100.0%
		% within ways of assigning a task	61.1%	44.3%	48.6%
		% of Total	15.6%	33.0%	48.6%
Total	Count	54	158	212	
	% within type of school	25.5%	74.5%	100.0%	
	% within ways of assigning a task	100.0%	100.0%	100.0%	
	% of Total	25.5%	74.5%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	4.551 ^b	1	.033		
Continuity Correction ^a	3.903	1	.048		
Likelihood Ratio	4.574	1	.032		
Fisher's Exact Test				.040	.024
Linear-by-Linear Association	4.530	1	.033		
N of Valid Cases	212				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.24.

(f) Type of school-Teaching approaches.

Crosstab

			teaching approaches		Total
			whole class teaching	individual teaching	
type of school	primary	Count	51	65	116
		% within type of school	44.0%	56.0%	100.0%
		% within teaching approaches	39.2%	63.1%	49.8%
		% of Total	21.9%	27.9%	49.8%
	secondary	Count	79	38	117
		% within type of school	67.5%	32.5%	100.0%
		% within teaching approaches	60.8%	36.9%	50.2%
		% of Total	33.9%	16.3%	50.2%
Total	Count	130	103	233	
	% within type of school	55.8%	44.2%	100.0%	
	% within teaching approaches	100.0%	100.0%	100.0%	
	% of Total	55.8%	44.2%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	13.104 ^b	1	.000		
Continuity Correction ^a	12.167	1	.000		
Likelihood Ratio	13.235	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	13.048	1	.000		
N of Valid Cases	233				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 51.28.

(g) Type of school-Marking.

Crosstab

			effects of marking		Total
			encourages	discourages	
type of school	primary	Count	46	58	104
		% within type of school	44.2%	55.8%	100.0%
		% within effects of marking	41.8%	69.0%	53.6%
		% of Total	23.7%	29.9%	53.6%
	secondary	Count	64	26	90
		% within type of school	71.1%	28.9%	100.0%
		% within effects of marking	58.2%	31.0%	46.4%
		% of Total	33.0%	13.4%	46.4%
Total	Count	110	84	194	
	% within type of school	56.7%	43.3%	100.0%	
	% within effects of marking	100.0%	100.0%	100.0%	
	% of Total	56.7%	43.3%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	14.200 ^b	1	.000		
Continuity Correction ^a	13.126	1	.000		
Likelihood Ratio	14.451	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	14.126	1	.000		
N of Valid Cases	194				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 38.97.

c. Teachers' gender.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
teacher's gender * discipline rules	180	69.2%	80	30.8%	260	100.0%
teacher's gender * teaching approaches	233	89.6%	27	10.4%	260	100.0%

(a) Teachers' gender-Discipline.

teacher's gender * ways of discipline Crosstabulation

			ways of discipline		Total
			discipline all	tolerant to difficult	
teacher's gender	male	Count	23	32	55
		% within teacher's gender	41.8%	58.2%	100.0%
		% within ways of discipline	20.7%	46.4%	30.6%
		% of Total	12.8%	17.8%	30.6%
	female	Count	88	37	125
		% within teacher's gender	70.4%	29.6%	100.0%
		% within ways of discipline	79.3%	53.6%	69.4%
		% of Total	48.9%	20.6%	69.4%
	Total	Count	111	69	180
		% within teacher's gender	61.7%	38.3%	100.0%
		% within ways of discipline	100.0%	100.0%	100.0%
		% of Total	61.7%	38.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square ^b	13.199	1	.000		
Continuity Correction ^a	12.018	1	.001		
Likelihood Ratio	13.016	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	13.126	1	.000		
N of Valid Cases	180				

^a Computed only for a 2x2 table

^b 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.08.

(b) Teachers' gender-Teaching approaches.

Crosstab

			teaching approaches		Total
			whole class teaching	individual teaching	
teacher's gender	male	Count	31	43	74
		% within teacher's gender	41.9%	58.1%	100.0%
		% within teaching approaches	23.8%	41.7%	31.8%
		% of Total	13.3%	18.5%	31.8%
	female	Count	99	60	159
		% within teacher's gender	62.3%	37.7%	100.0%
		% within teaching approaches	76.2%	58.3%	68.2%
		% of Total	42.5%	25.8%	68.2%
	Total	Count	130	103	233
		% within teacher's gender	55.8%	44.2%	100.0%
		% within teaching approaches	100.0%	100.0%	100.0%
		% of Total	55.8%	44.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	8.497 ^b	1	.004		
Continuity Correction ^a	7.691	1	.006		
Likelihood Ratio	8.483	1	.004		
Fisher's Exact Test				.005	.003
Linear-by-Linear Association	8.461	1	.004		
N of Valid Cases	233				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.71.

d. Teachers' Age.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
teachers' age * causes for pupils' difficulties	199	76.5%	61	23.5%	260	100.0%

Teachers' age-Environmental causes for pupils' difficulties

teachers' age * causes for pupils' difficulties Crosstabulation

			causes for pupils' difficulties		Total
			home	school	
teachers' age	younger (20-40 years old)	Count	90	7	97
		% within teachers' age	92.8%	7.2%	100.0%
		% within causes for pupils' difficulties	52.6%	25.0%	48.7%
		% of Total	45.2%	3.5%	48.7%
	older (+40 years old)	Count	81	21	102
		% within teachers' age	79.4%	20.6%	100.0%
		% within causes for pupils' difficulties	47.4%	75.0%	51.3%
		% of Total	40.7%	10.6%	51.3%
Total	Count	171	28	199	
	% within teachers' age	85.9%	14.1%	100.0%	
	% within causes for pupils' difficulties	100.0%	100.0%	100.0%	
	% of Total	85.9%	14.1%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	7.353 ^b	1	.007		
Continuity Correction ^a	6.288	1	.012		
Likelihood Ratio	7.674	1	.006		
Fisher's Exact Test				.008	.005
Linear-by-Linear Association	7.316	1	.007		
N of Valid Cases	199				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.65.

e. Teachers' specialist subject qualification.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
specialist subject qualification * pupils' homeworkhomework	113	43.5%	147	56.5%	260	100.0%
specialist subject qualification * effects of marking	96	36.9%	164	63.1%	260	100.0%

(a) Teachers' specialist subject qualification-Homework.

Crosstab

			pupils' homeworkhomework		Total
			same homework	different to pupils with difficulties	
specialist subject qualification	humanities	Count	26	49	75
		% within specialist subject qualification	34.7%	65.3%	100.0%
		% within pupils' homeworkhomework	89.7%	58.3%	66.4%
		% of Total	23.0%	43.4%	66.4%
	physical education	Count	1	10	11
		% within specialist subject qualification	9.1%	90.9%	100.0%
		% within pupils' homeworkhomework	3.4%	11.9%	9.7%
		% of Total	.9%	8.8%	9.7%
	Maths/Science	Count	2	25	27
		% within specialist subject qualification	7.4%	92.6%	100.0%
		% within pupils' homeworkhomework	6.9%	29.8%	23.9%
		% of Total	1.8%	22.1%	23.9%
Total	Count	29	84	113	
	% within specialist subject qualification	25.7%	74.3%	100.0%	
	% within pupils' homeworkhomework	100.0%	100.0%	100.0%	
	% of Total	25.7%	74.3%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)
Pearson Chi-Square	9.487 ^a	2	.009
Likelihood Ratio	10.945	2	.004
Linear-by-Linear Association	8.687	1	.003
N of Valid Cases	113		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.82.

(b) Teachers' specialist subject qualification-Marking.

Crosstab

			effects of marking		Total
			encourages	discourages	
specialist subject qualification	humanities	Count	47	17	64
		% within specialist subject qualification	73.4%	26.6%	100.0%
		% within effects of marking	70.1%	58.6%	66.7%
		% of Total	49.0%	17.7%	66.7%
	physical education	Count	1	6	7
		% within specialist subject qualification	14.3%	85.7%	100.0%
		% within effects of marking	1.5%	20.7%	7.3%
		% of Total	1.0%	6.3%	7.3%
	Maths/Science	Count	19	6	25
		% within specialist subject qualification	76.0%	24.0%	100.0%
		% within effects of marking	28.4%	20.7%	26.0%
		% of Total	19.8%	6.3%	26.0%
	Total	Count	67	29	96
		% within specialist subject qualification	69.8%	30.2%	100.0%
		% within effects of marking	100.0%	100.0%	100.0%
		% of Total	69.8%	30.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)
Pearson Chi-Square	11.090 ^a	2	.004
Likelihood Ratio	10.233	2	.006
Linear-by-Linear Association	.039	1	.843
N of Valid Cases	96		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.11.

f. Teachers' experience.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
teachers' experience * causes for pupils' difficulties	217	83.5%	43	16.5%	260	100.0%

Teachers' experience-Environmental causes for pupils' difficulties

teachers' experience * causes for pupils' difficulties Crosstabulation

			causes for pupils' difficulties		Total
			home	school	
teachers' experience	less experienced (1-10 years)	Count	63	4	67
		% within teachers' experience	94.0%	6.0%	100.0%
		% within causes for pupils' difficulties	34.1%	12.5%	30.9%
		% of Total	29.0%	1.8%	30.9%
	more experienced (+10 years)	Count	122	28	150
		% within teachers' experience	81.3%	18.7%	100.0%
		% within causes for pupils' difficulties	65.9%	87.5%	69.1%
		% of Total	56.2%	12.9%	69.1%
Total	Count	185	32	217	
	% within teachers' experience	85.3%	14.7%	100.0%	
	% within causes for pupils' difficulties	100.0%	100.0%	100.0%	
	% of Total	85.3%	14.7%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	5.938 ^b	1	.015		
Continuity ^a Correction	4.971	1	.026		
Likelihood Ratio	6.827	1	.009		
Fisher's Exact Test				.013	.010
Linear-by-Linear Association	5.911	1	.015		
N of Valid Cases	217				

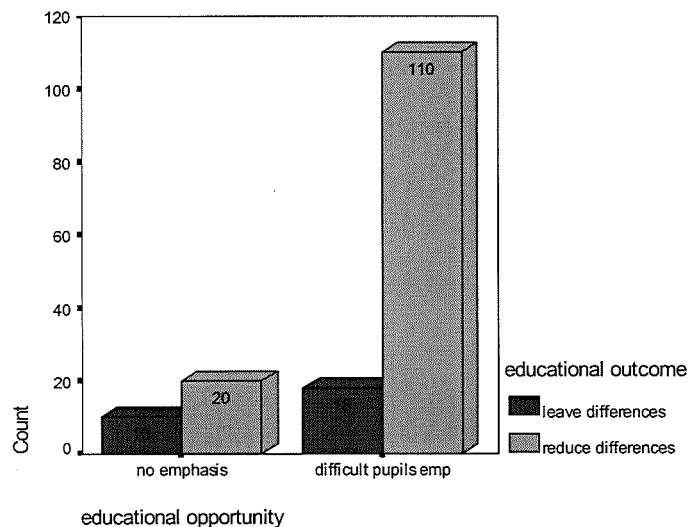
a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.88.

v. Bar charts of significant associations between educational outcome, seating arrangements and teachers' attitudes directly and indirectly related to educational equality.

(a) Teachers' attitudes towards educational outcome were significantly associated with their attitudes towards educational opportunity.

Bar chart v. a: Distribution of educational outcome in relation to educational opportunity



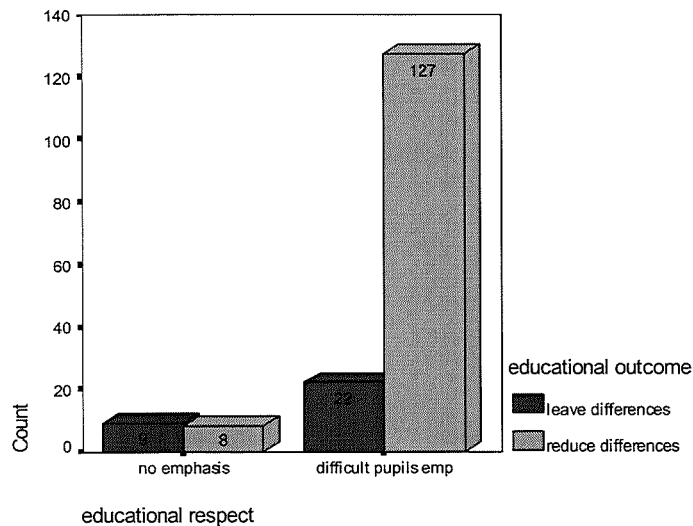
Chi. Sq.=6.1, df=1, $p < .013$

There was a strong tendency for teachers who believe that giving an emphasis to opportunity for pupils with difficulties is more important to believe that reducing pupils' differences is more important.

Amongst the teachers who believe that giving equal opportunity to pupils is more important, there was no big difference in believing that either leaving or reducing pupils' differences is more important.

(b) Teachers' attitudes towards educational outcome were significantly associated with their attitudes towards educational respect.

Bar chart v. b: Distribution of educational outcome in relation to educational respect



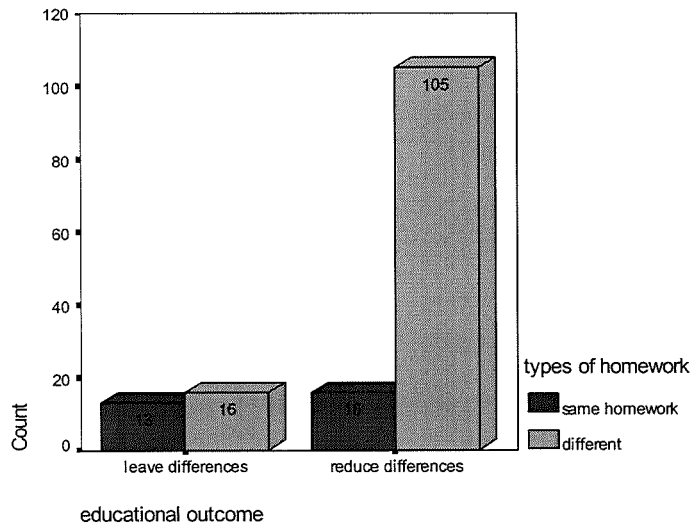
Chi. Sq.=14.6, df=1, $p<.000$

There was a strong tendency for teachers who believe that giving an emphasis on respecting pupils with difficulties is more important to believe that reducing pupils' differences is more important.

Amongst the teachers who believe that giving equal respect to pupils is more important, there was no difference in believing that either leaving or reducing pupils' differences is more important.

(c) Teachers' attitudes towards educational outcome were significantly associated with their attitudes towards pupils' homework.

Bar chart v. c: Distribution of educational outcome in relation to pupils' homework



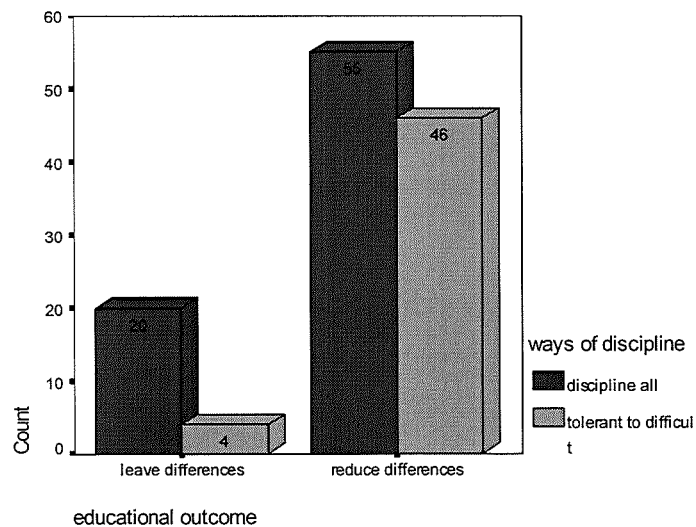
Chi. Sq.=14.9, df=1, $p<.000$

There was a strong tendency for teachers who believe that reducing pupils' differences is more important to believe that giving different homework to pupils with difficulties is important.

Amongst the teachers who believe that leaving pupils' differences is more important, there was no difference in believing that either giving the same homework to pupils or different homework to pupils with difficulties is more important.

(d) Teachers' attitudes towards educational outcome were significantly associated with their attitudes towards discipline.

Bar chart table v. d: Distribution of educational outcome in relation to discipline



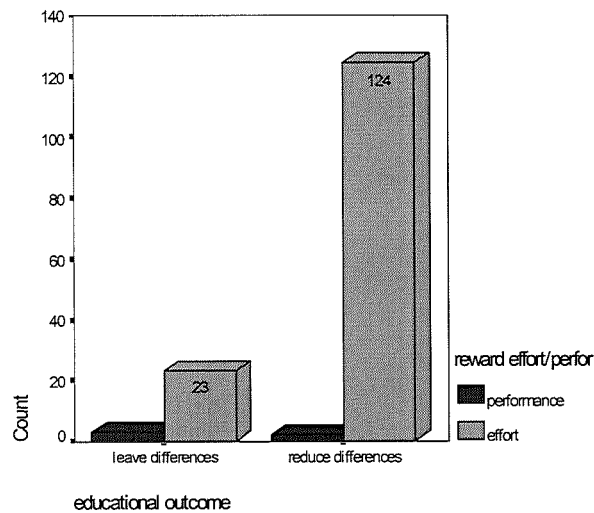
Chi. Sq.=6.7, df=1, $p < .009$

There was a tendency for teachers who believe that reducing pupils' differences is more important to believe in discipling all pupils.

Amongst the teachers who believe that leaving pupils' differences is more important, there was a smaller tendency to believe that discipling all pupils is important.

(e) Teachers' attitudes towards educational outcome were significantly associated with their attitudes towards kinds of rewards.

Bar chart v. e: Distribution of educational outcome in relation to kinds of rewards



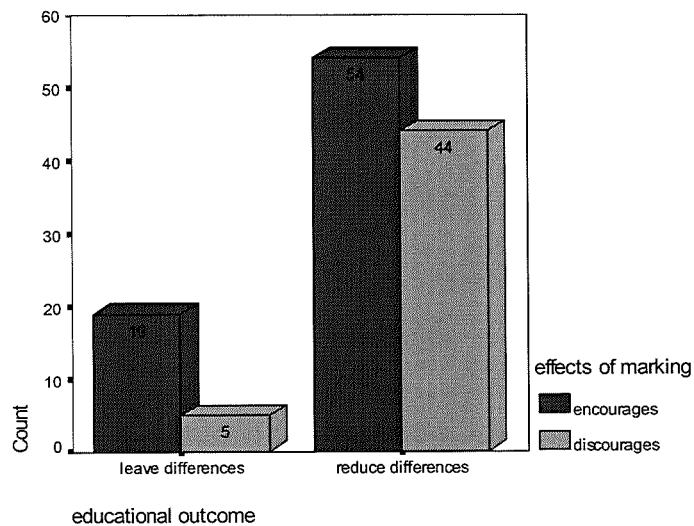
Chi. Sq.=6.7, df=1, p,<.010

There was a strong tendency for teachers who believe that reducing pupils' differences is important to believe in the importance of rewarding pupils' effort.

Amongst teachers who believed that leaving pupils' differences is more important, there was no big difference in believing that either rewarding pupils' performance or effort is more important.

(f) Teachers' attitudes towards educational outcome were significantly associated with their attitudes towards the effects of marking.

Bar chart v. f: Distribution of educational outcome in relation to effects of marking



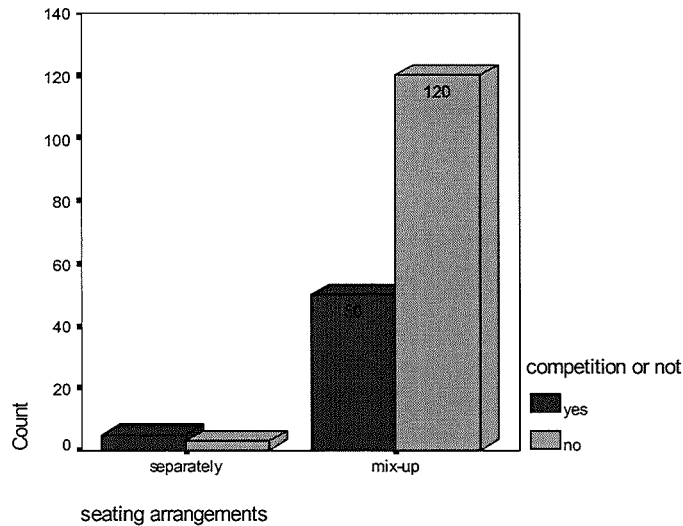
Chi. Sq.=4.6, df=1, $p<.031$

There was a tendency for teachers who believe that leaving pupils' differences is more important to believe that encouraging effects of marking are possible.

Amongst teachers who believe that reducing pupils' differences is important, there was a smaller tendency to believe in the possible encouraging effects of marking.

(g) Teachers' attitudes towards seating arrangements were significantly associated with their attitudes towards use of competition.

Bar chart v. g: Distribution of seating arrangements in relation to use of competition



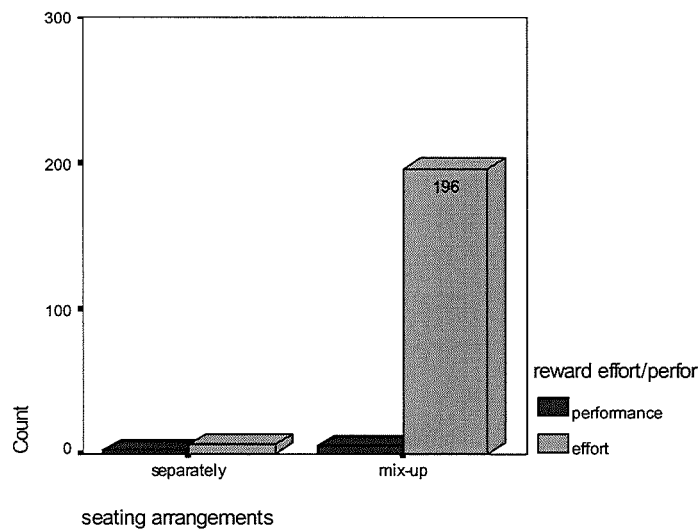
Chi. Sq.=3.9, df=1, $p<.048$

There was a strong tendency for teachers who believed that mixing-up all pupils is important to disagree with the use of competition in class.

Amongst teachers who believe that separating pupils with difficulties is more important, there was no great difference in agreeing or disagreeing with the use of competition.

(h) Teachers' attitudes towards seating arrangements were significantly associated with their attitudes towards kinds of rewards.

Bar chart v. h: Distribution of seating arrangements in relation to kinds of rewards



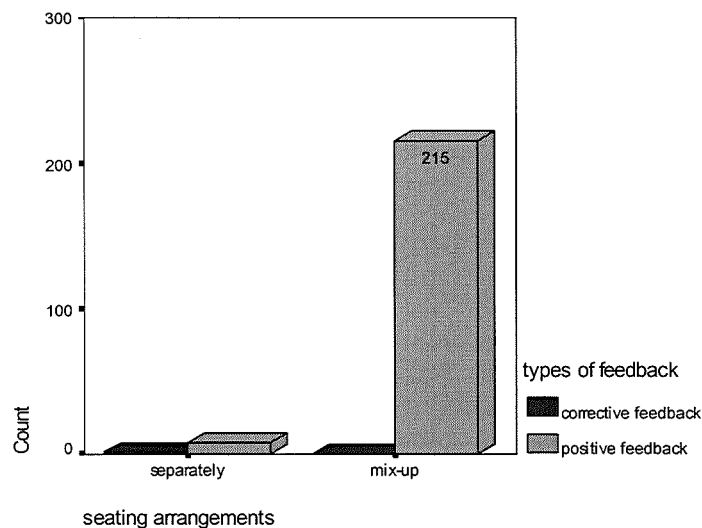
Chi. Sq.=12, df=1, $p<.001$

There was a strong tendency for teachers who believe that mixing-up all pupils is more important to believe that rewarding pupils' effort is more important.

Amongst teachers who believe that separating pupils with difficulties is more important, there was no distinct difference in believing that either rewarding pupils' effort or performance is more important.

(i) Teachers' attitudes towards seating arrangements were significantly associated with their attitudes towards kinds of feedback.

Bar chart v. i: Distribution of seating arrangements in relation to kinds of feedback



Chi. Sq.=26.9, df=1, $p<.000$

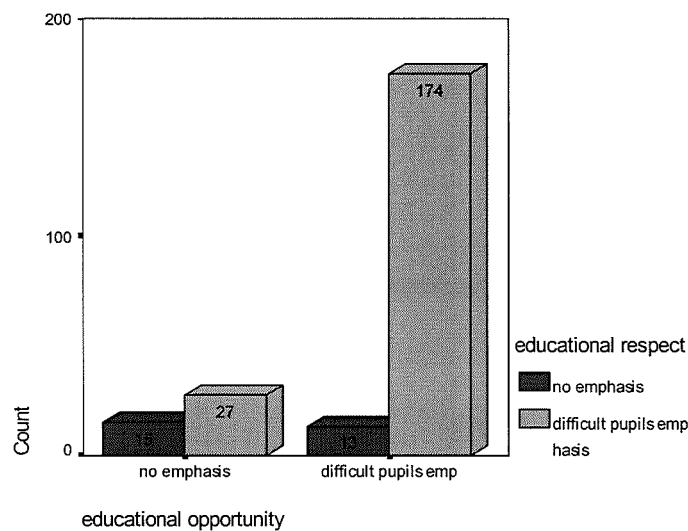
There was a strong tendency for teachers who believe that mixing-up all pupils is important to believe that giving positive feedback to pupils is very important.

Amongst teachers who believe that separating pupils with difficulties is more important, there was no difference in believing that either giving positive or corrective feedback to pupils is more important.

vi. Bar charts of significant associations between teachers' attitudes directly related to educational equality.

(a) Teachers' attitudes towards educational opportunity were significantly associated with their attitudes towards educational respect.

Bar chart vi. a: Distribution of educational opportunity in relation to educational respect



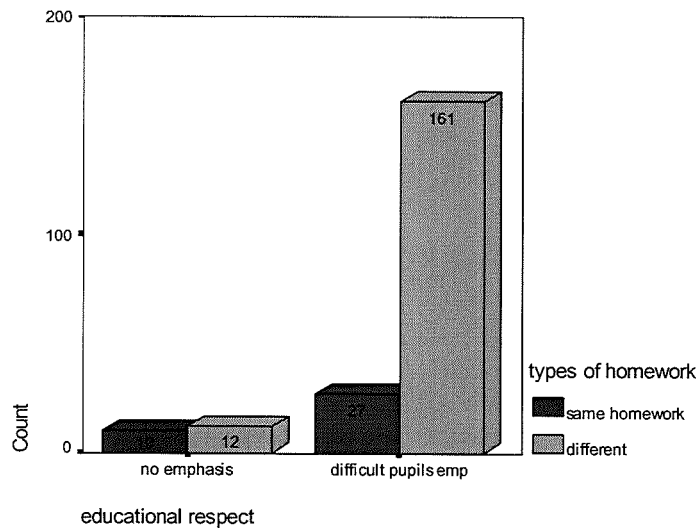
Chi. Sq.=26.4, df=1, $p<.000$

There was a strong tendency for teachers who believe that giving emphasis to opportunity to pupils with difficulties is more important to believe that giving emphasis to respecting pupils with difficulties is more important.

Amongst the teachers who believe that giving equal opportunity to pupils is the most important, there was no big difference in believing that giving either equal respect to pupils or an emphasis to respect to pupils with difficulties is more important.

(b) Teachers' attitudes towards educational respect were significantly associated with their attitudes towards pupils' homework.

Bar chart vi. b: Distribution of educational respect in relation to pupils' homework



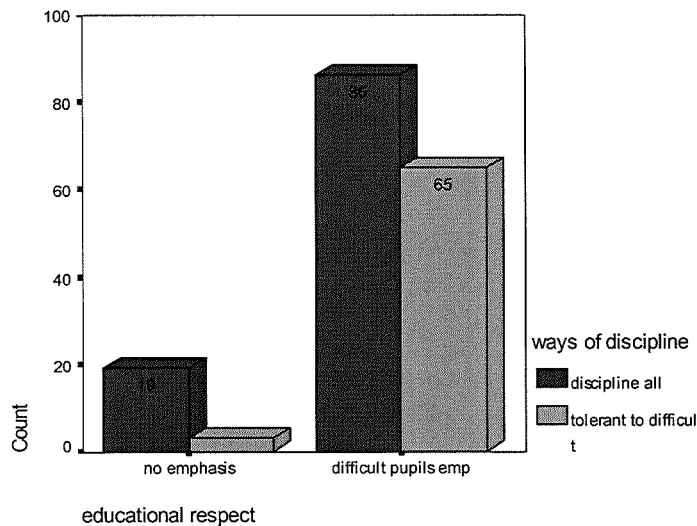
Chi. Sq.=13.1, df=1, $p<.000$

There was a strong tendency for teachers who believe that giving emphasis to respecting pupils with difficulties is more important to believe that giving different homework to pupils with difficulties is more important.

Amongst the teachers who believe that giving equal respect to pupils is more important, there was no difference in believing that either giving the same homework to pupils or different homework to pupils with difficulties is more important.

(c) Teachers' attitudes towards educational respect were significantly associated with their attitudes towards discipline rules.

Bar chart vi. c: Distribution of educational respect in relation to discipline rules



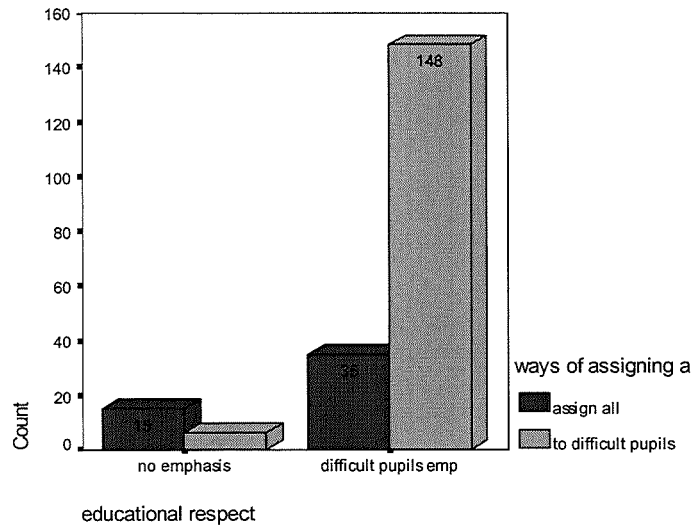
Chi. Sq. = 6.9, df = 1, $p < .008$

There was a tendency for teachers who believe that giving emphasis to respect to pupils with difficulties is more important to believe that disciplining all pupils is more important.

Amongst the teachers who believe that giving equal respect to pupils is more important, there was no big difference in believing that either disciplining all pupils or being tolerant to pupils with difficulties is more important.

(d) Teachers' attitudes towards educational respect were significantly associated with their attitudes towards assigning a task.

Bar chart vi. d: Distribution of educational respect in relation to assign task



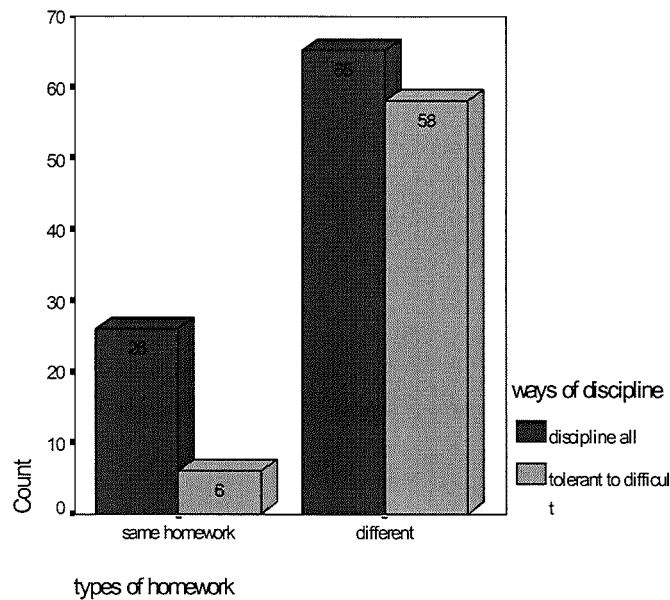
Chi. Sq.=27.8, df=1, $p<.000$

There was a strong tendency for teachers who believe that giving emphasis to respect to pupils with difficulties is more important to believe that assigning pupils with difficulties a task is more important.

Amongst the teachers who believe that giving equal respect to pupils is more important, there was no big difference in believing that either assigning all pupils or pupils with difficulties a task is more important.

(e) Teachers' attitudes towards pupils' homework were significantly associated with their attitudes towards discipline rules.

Bar chart vi. e: Distribution of pupils' homework in relation to discipline rules



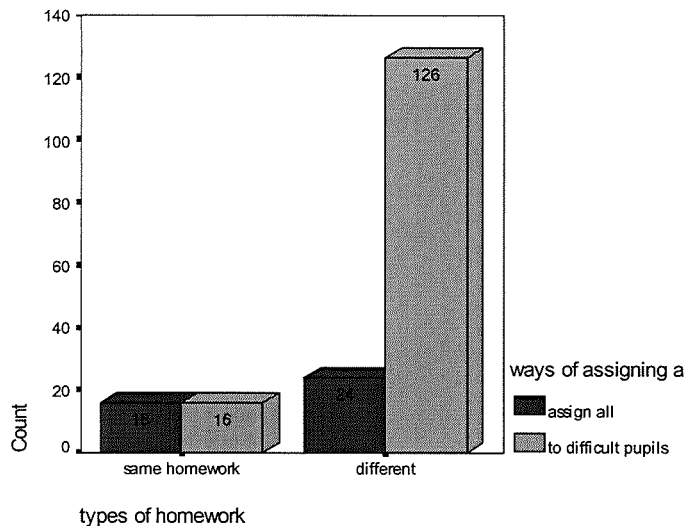
Chi. Sq.=8.4, df=1, $p<.004$

There was a tendency for teachers who believe that giving different homework to pupils with difficulties is more important to believe that disciplining all pupils is more important.

Amongst the teachers who believe that giving same homework to pupils is more important, there was a smaller tendency in believing that disciplining all pupils is more important.

(f) Teachers' attitudes towards pupils' homework were significantly associated with their attitudes towards assigning a task.

Bar chart vi. f: Distribution of pupils' homework in relation to assign task



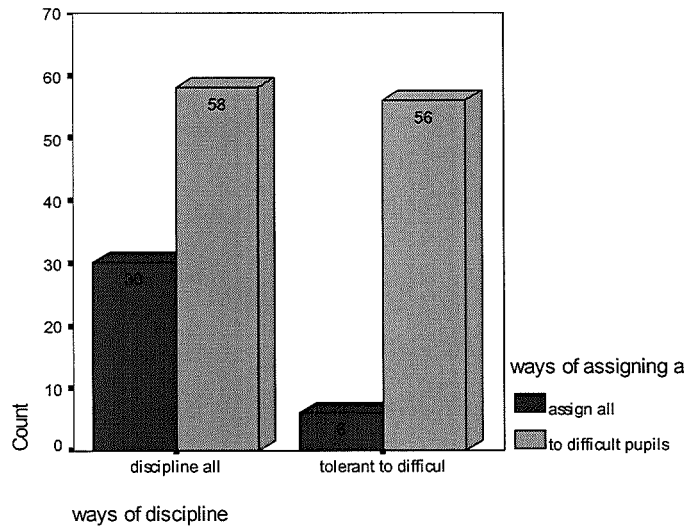
Chi. Sq.=17.7, df=1, $p<.000$

There was a strong tendency for teachers who believe that giving different homework to pupils with difficulties is more important to believe that assigning pupils with difficulties a task is more important.

Amongst teachers who believe that giving same homework to pupils is more important, there was no difference in believing that either assigning all pupils or pupils with difficulties a task is more important.

(g) Teachers' attitudes towards discipline rules were significantly associated with their attitudes towards assigning a task.

Bar chart vi. g: Distribution of discipline rules in relation to assign task



Chi. Sq.=11.8, df=1, $p<.001$

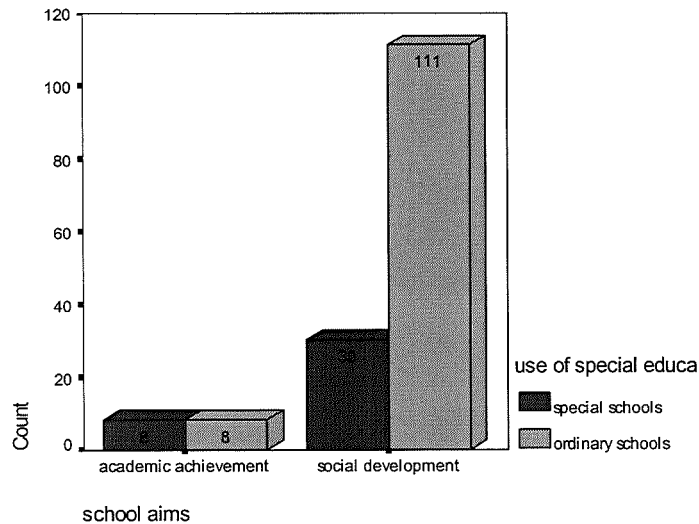
There was a strong tendency for teachers who believe that being tolerant to pupils with difficulties is more important to believe that assigning a task to pupils with difficulties is more important.

Amongst teachers who believe that disciplining all pupils is more important, there was a smaller tendency in believing that assigning pupils with difficulties a task is more important.

vii. Bar charts of significant associations between teachers' attitudes indirectly related to educational equality.

(a) Teachers' attitudes towards school aims were significantly associated with their attitudes towards special education use.

Bar chart vii. a: Distribution of school aims in relation to special education use



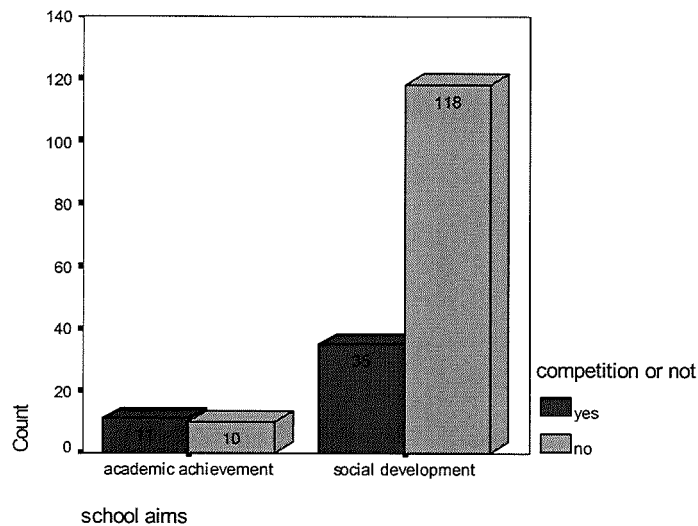
Chi. Sq.=6.4, df=1, $p<.011$

There was a strong tendency for teachers who believe that pupils' social development is more important to believe that use of special education in ordinary schools is more important.

Amongst teachers who believe that pupils' academic achievement is more important, there was no difference in believing that either special schools or special education use in ordinary schools is more important.

(b) Teachers' attitudes towards school aims were significantly associated their attitudes towards use of competition.

Bar chart vii. b: Distribution of use of school aims in relation to use of competition



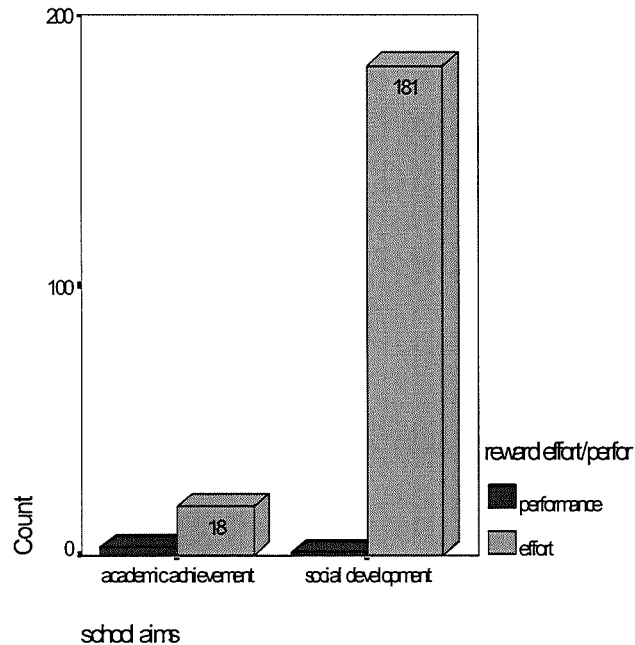
Chi. Sq.=8.2, df=1, $p<.004$

There was a strong tendency for teachers who believe that pupils' social development is more important to disagree with the use of competition in class.

Amongst teachers who believe that pupils' academic achievement is more important, there was no difference in agreeing or disagreeing with the use of competition in class.

(c) Teachers' attitudes towards school aims were significantly associated with their attitudes towards kinds of rewards.

Bar chart vii. c: Distribution of school aims in relation to kinds of rewards



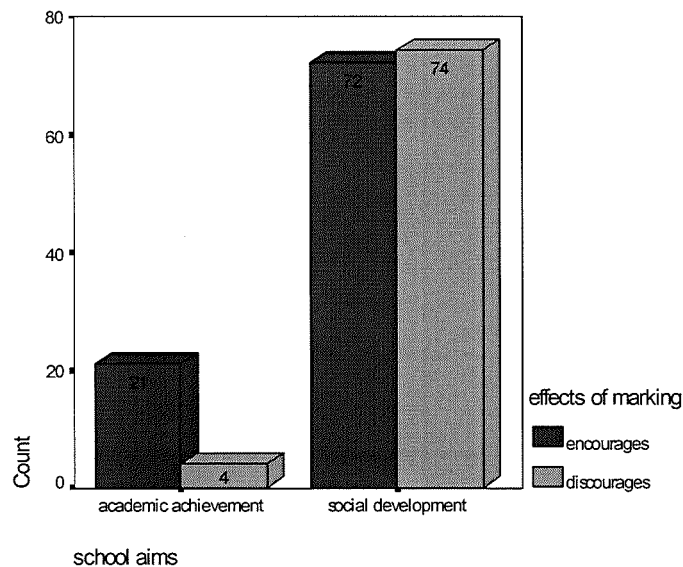
Chi. Sq. = 18.3, df = 1, <.001

There was a strong tendency for teachers who believe that pupils' social achievement is more important to believe that rewarding pupils' effort is more important.

Amongst teachers who believe that pupils' academic achievement is more important, there was no big difference in believing that rewarding either pupils' performance or effort is more important.

(d) Teachers' attitudes towards school aims were significantly associated with their attitudes towards effects of marking.

Bar chart vii. d: Distribution of school aims in relation to effects of marking



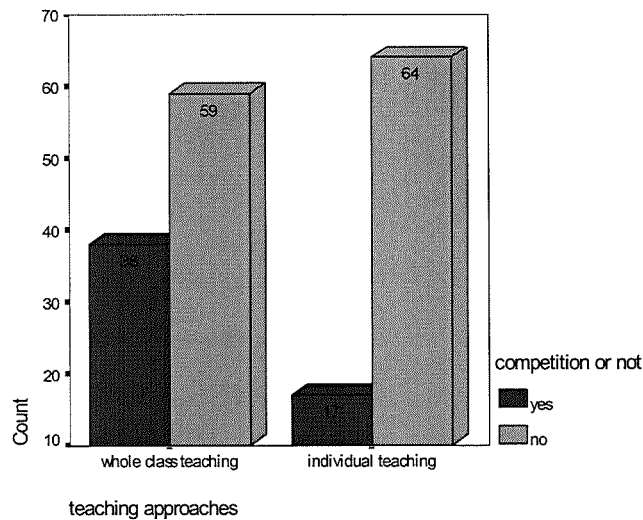
Chi. Sq.=10.3, df=1, <.001

There was a tendency for teachers who believe that pupils' academic achievement is more important to believe that encouraging effects of marking are more possible.

Amongst teachers who believe that pupils' social development is more important, there was no difference in believing that either encouraging or discouraging effects of marking are more possible.

(e) Teachers' attitudes towards teaching approaches were significantly associated with their attitudes towards use of competition.

Bar chart vii. e: Distribution of teaching approaches in relation to use of competition



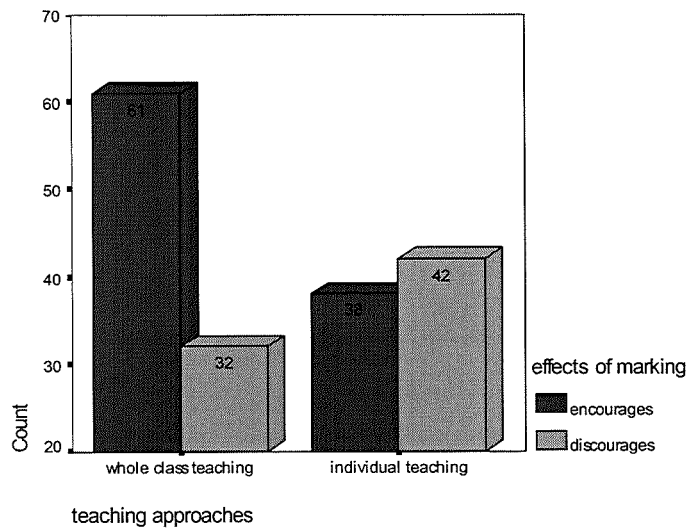
Chi. Sq.=6.8, df=1, $p<.009$

There was a strong tendency for teachers who believe that individual teaching approach is more important to disagree with the use of competition in class.

Amongst teachers who believe that whole class teaching approach is more important, there was a smaller tendency in disagreeing with the use of competition in class.

(f) Teachers' attitudes towards teaching approaches were significantly associated with their attitudes towards effects of marking.

Bar chart vii. f: Distribution of teaching approaches in relation to effects of marking



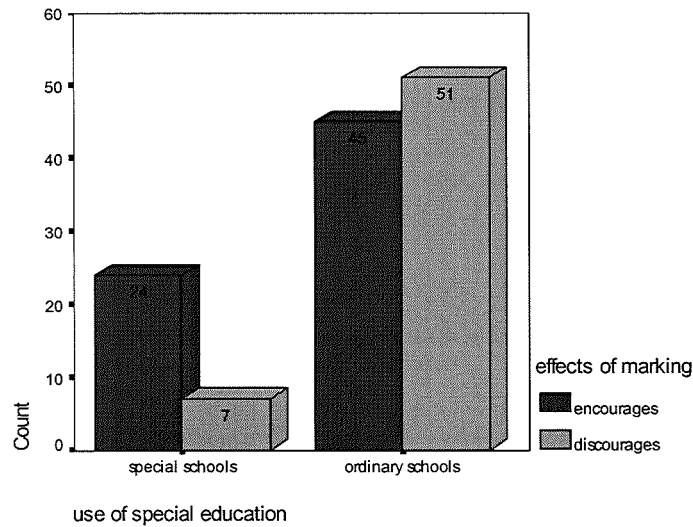
Chi. Sq.=5.7, df=1, $p<.016$

There was a tendency for teachers who believe that whole class teaching approach is more important to believe that encouraging effects of marking are more possible.

Amongst teachers who believe that individual teaching approach is more important, there was no big difference in believing that either encouraging or discouraging effects of marking are more possible.

(g) Teachers' attitudes towards special education use were significantly associated with their attitudes towards effects of marking.

Bar chart vii. g: Distribution of special education use in relation to effects of marking



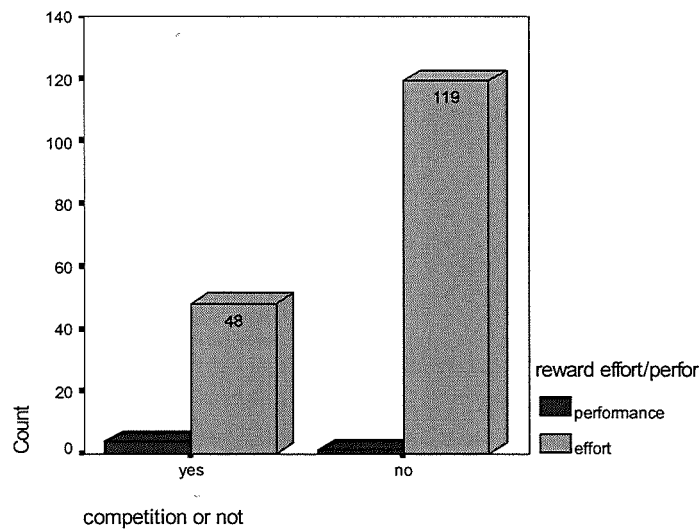
Chi. Sq.=8.8, df=1, $p<.003$

There was a tendency for teachers who believe that use of special education in special schools is more important to believe that encouraging effects of marking are more possible.

Amongst teachers who believe that use of special education in ordinary schools is more important, there was no big difference in believing that either encouraging or discouraging effects of marking are more possible.

(h) Teachers' attitudes towards use of competition were significantly associated with their attitudes towards kinds of rewards.

Bar chart vii. h: Distribution of use of competition in relation to kinds of rewards



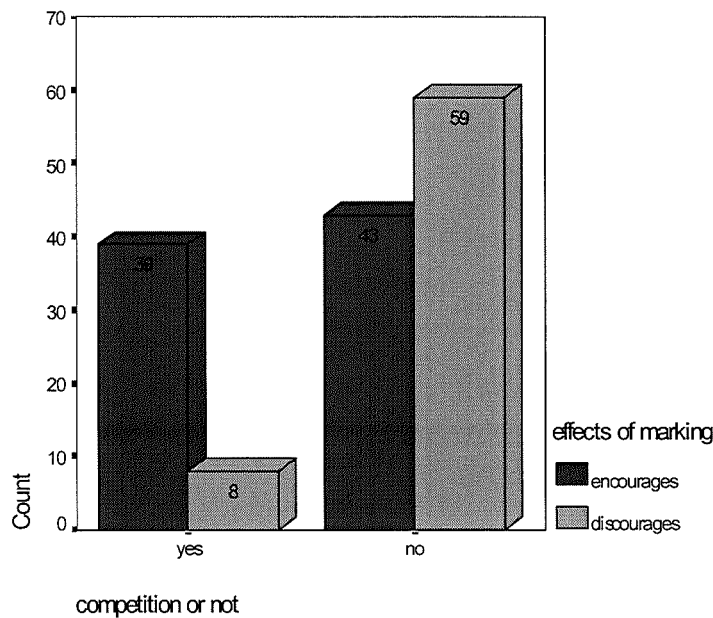
Chi. Sq.=6, df=1, $p < .014$

There was a strong tendency for teachers who disagree with use of competition in class to believe that rewarding pupils' effort is more important.

Amongst teachers who agree with use of competition in class, there was a smaller tendency in believing that rewarding pupils' effort is more important.

(i) Teachers' attitudes towards use of competition were significantly associated with their attitudes towards effects of marking.

Bar chart vii. i: Distribution of use of competition in relation to effects of marking



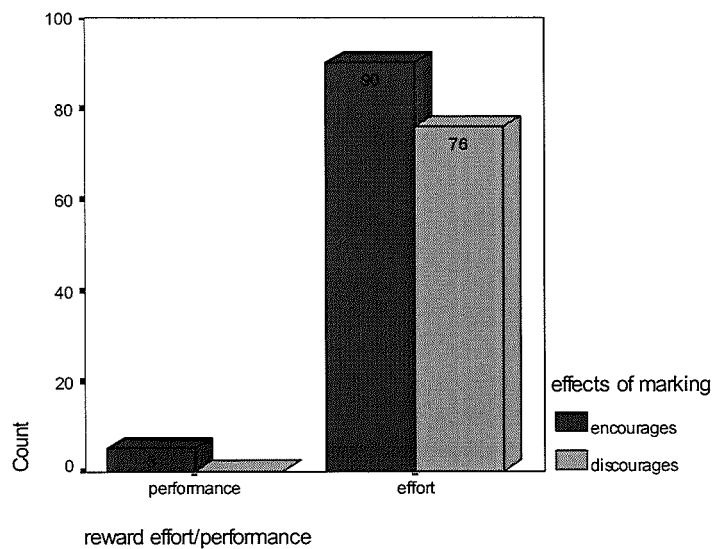
Chi. Sq.=21.6, df=1, $p<.000$

There was a tendency for teachers who agree with the use of competition in class to believe that encouraging effects of marking are more possible.

Amongst teachers who disagree with the use of competition in class, there was a smaller tendency in believing that discouraging effects of marking are more possible.

(j) Teachers' attitudes towards kinds of rewards were significantly associated with their attitudes towards effects of marking.

Bar chart vii. j: Distribution of kinds of rewards in relation to effects of marking



Chi. Sq.=4.1, df=1, $p<.042$

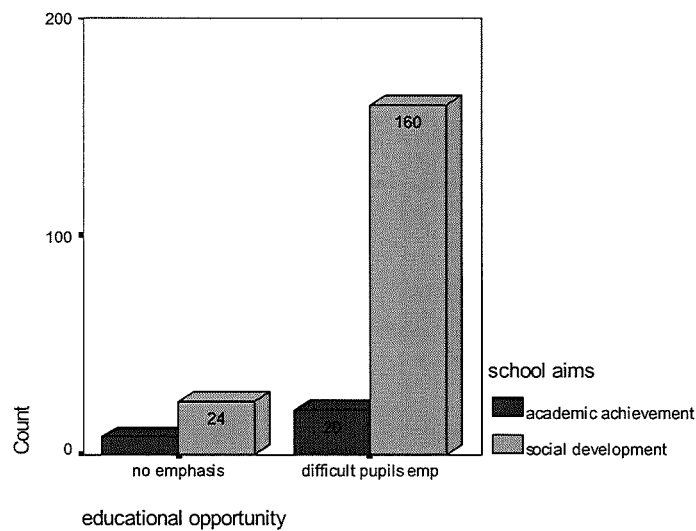
There was a small tendency for teachers who believe that rewarding pupils' effort to believe that encouraging effects of marking are more possible.

Amongst teachers who believe that rewarding pupils' performance is more important, there was no difference in believing that either encouraging or discouraging effects of marking are more possible.

viii. Bar charts of significant associations between teachers' attitudes directly and indirectly related to educational equality.

(a) Teachers' attitudes towards educational opportunity were significantly associated with their attitudes towards school aims.

Bar chart viii. a: Distribution of educational opportunity in relation to school aims



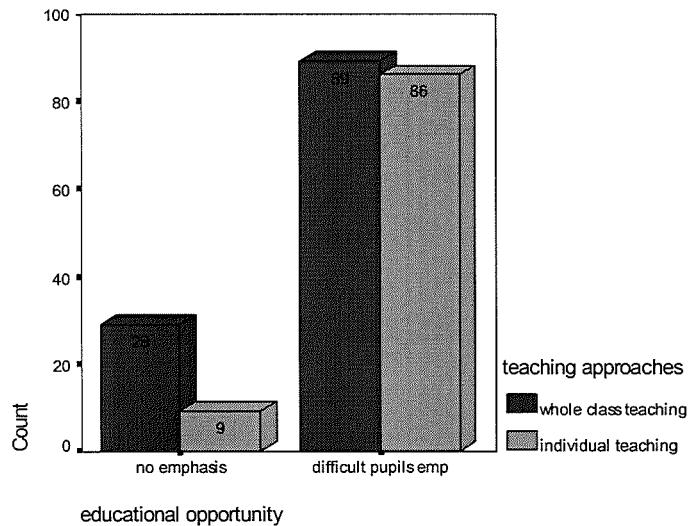
Chi. Sq.=8.1, df=1, $p<.032$

There was a strong tendency for teachers who believe that giving emphasis to opportunity to pupils with difficulties is more important to believe that pupils' social development is more important.

Amongst teachers who believe that giving equal opportunity to pupils is more important, there was no big difference in believing that either pupils' academic achievement or social development is more important.

(b) Teachers' attitudes towards educational opportunity were significantly associated with their attitudes towards teaching approaches.

Bar chart viii. b: Distribution of educational opportunity in relation to teaching approaches



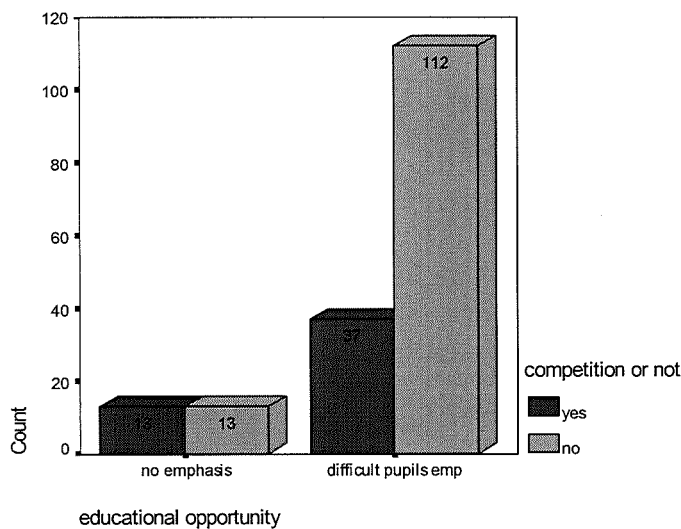
Chi. Sq.=8.1, df=1, $p<.004$

There was a strong tendency for teachers who believe that giving equal opportunity to pupils is more important to believe that whole class teaching approach is more important.

Amongst teachers who believe that giving emphasis to opportunity to pupils with difficulties is more important, there was no difference in believing either that either whole class or individual teaching approach is more important.

(c) Teachers' attitudes towards educational opportunity were significantly associated with their attitudes towards use of competition.

Bar chart viii. c: Distribution of educational opportunity in relation to use of competition



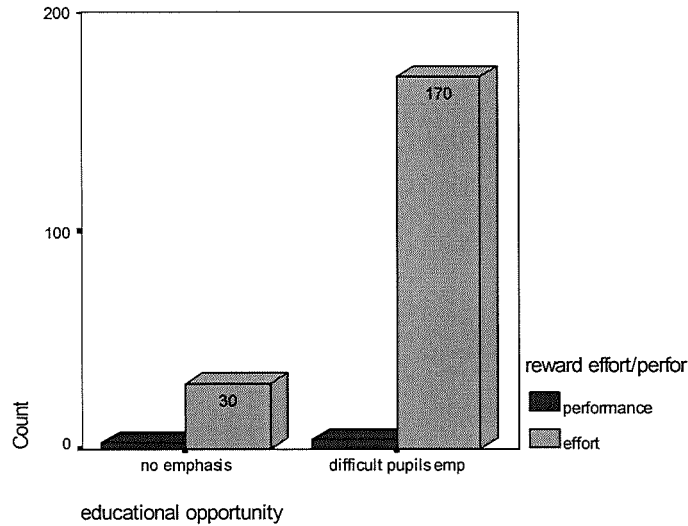
Chi. Sq.=6.8, df=1, $p<.009$

There was a strong tendency for teachers who believe that giving emphasis to opportunity to pupils with difficulties is more important to disagree with the use of competition in class.

Amongst teachers who believe that giving equal opportunity to pupils is more important, there was no difference in agreeing or disagreeing with the use of competition in class.

(d) Teachers' attitudes towards educational opportunity were significantly associated with their attitudes towards teachers' kinds of rewards.

Bar chart viii. d: Distribution of educational opportunity in relation to kinds of rewards



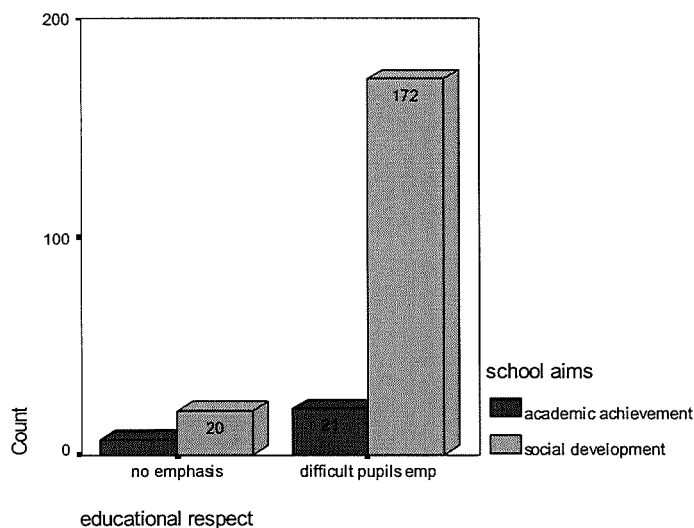
Chi. Sq.=3.9, df=1, $p<.048$

There was a strong tendency for teachers who believe that giving emphasis to opportunity to pupils with difficulties is more important to believe that rewarding pupils' effort is more important.

Amongst teachers who believe that giving equal opportunity to pupils is more important, there was no big difference in believing either that rewarding pupils' performance or effort is more important.

(e) Teachers' attitudes towards educational respect were significantly associated with their attitudes towards school aims.

Bar chart viii. e: Distribution of educational respect in relation to school aims



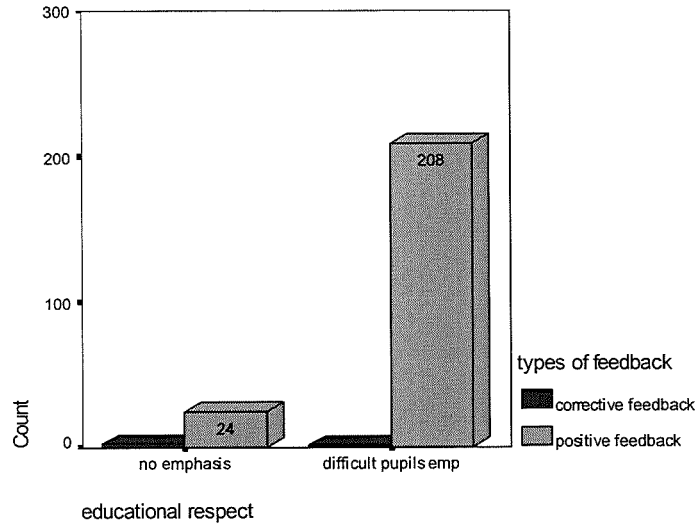
Chi. Sq.=4.8, df=1, $p<.028$

There was a strong tendency for teachers who believe that giving emphasis to respect to pupils with difficulties is more important to believe that pupils' social development is more important.

Amongst teachers who believe that giving equal respect to pupils is more important, there was no big difference in believing that either pupils' social development or academic achievement is more important.

(f) Teachers' attitudes towards educational respect were significantly associated with their attitudes towards kinds of feedback.

Bar chart viii. f: Distribution of educational respect in relation to kinds of feedback



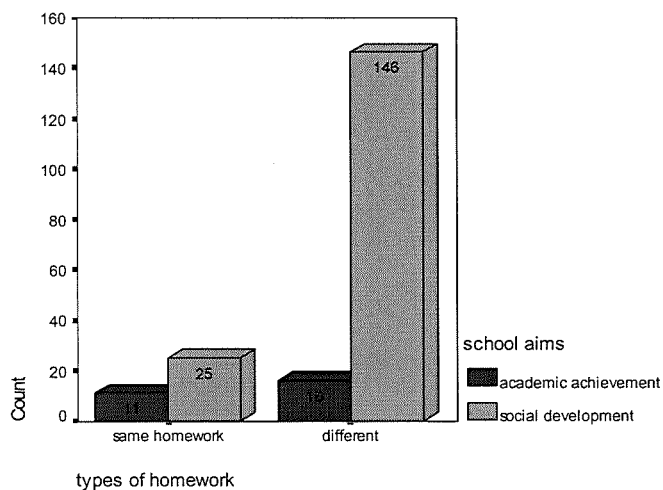
Chi. Sq.=9.5, df=1, p: <.002

There was a strong tendency for teachers who believe that giving emphasis to respect to pupils with difficulties is more important to believe that giving more positive feedback to pupils is more important.

Amongst teachers who believe that giving equal respect to pupils is more important, there was no big difference in believing that either giving more corrective or positive feedback to pupils is more important .

(g) Teachers' attitudes towards pupils' homework were significantly associated with their attitudes towards school aims.

Bar chart viii. g: Distribution of pupils' homework in relation to school aims



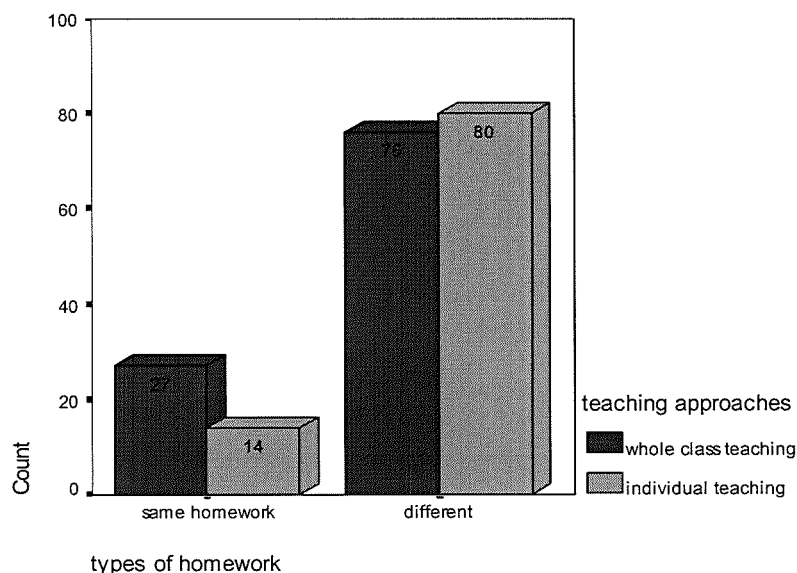
Chi. Sq.=10.6, df=1, $p<.001$

There was a strong tendency for teachers who believe in giving different homework to pupils with difficulties to pupils is more important to believe that pupils' social development is more important.

Amongst teachers who believe that giving same homework to pupils, there was a smaller tendency to believe that pupils' social development is more important.

(h) Teachers' attitudes towards pupils' homework were significantly associated with their attitudes towards teaching approaches.

Bar chart viii. h: Distribution of pupils' homework in relation to teaching approaches



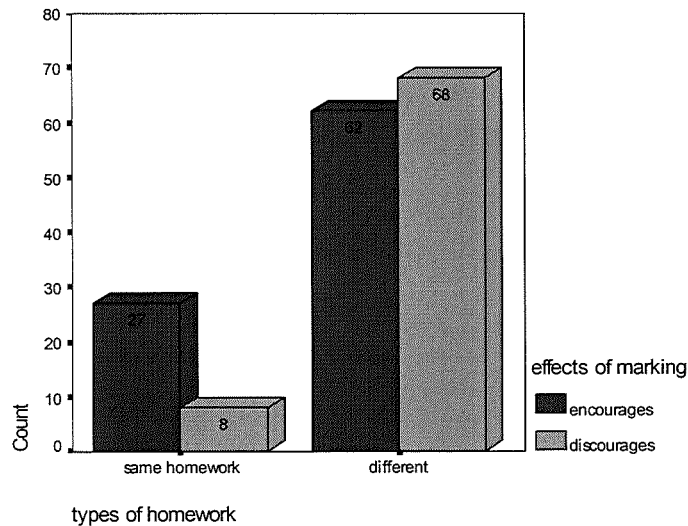
Chi. Sq.=3.8, df=1, $p<.051$

There was a tendency for teachers who believe that giving same homework to pupils is more important to believe that whole class teaching approach is more important.

Amongst teachers who believe that giving different homework to pupils with difficulties to pupils is more important, there was no big difference in believing either that whole class or individual teaching approach is more important.

(i) Teachers' attitudes towards pupils' homework were significantly associated with their attitudes towards effects of marking.

Bar chart viii. i: Distribution of pupils' homework in relation to effects of marking



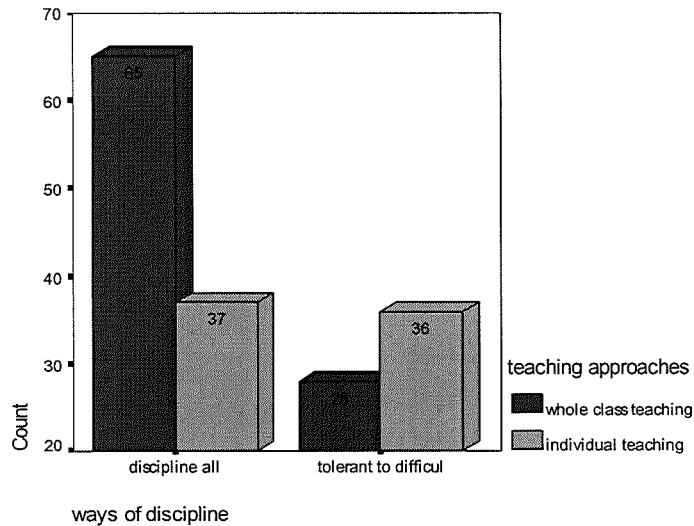
Chi. Sq.=9.6, df=1, $p<.002$

There was a tendency for teachers who believe that giving same homework to pupils is more important to believe that encouraging effects of marking are more possible.

Amongst teachers who believe that giving different homework to pupils with difficulties to pupils is more important, there was no big difference in believing that either encouraging or discouraging effects of marking are more possible.

(j) Teachers' attitudes towards discipline rules were significantly associated with their attitudes towards teaching approaches.

Bar chart viii. j: Distribution of discipline rules in relation to teaching approaches



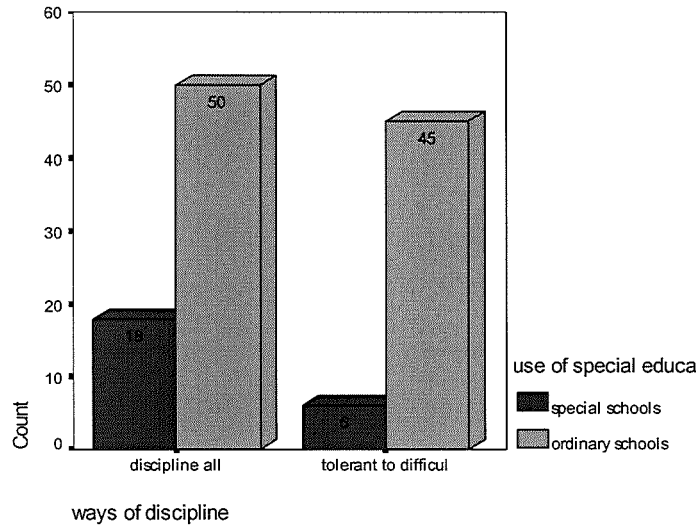
Chi. Sq.=6.3, df=1, $p<.012$

There was a strong tendency for teachers who believe that discipling all pupils is more important to believe that whole class teaching approach is more important.

Amongst teachers who believe that being tolerant to pupils with difficulties is more important, there was a smaller tendency in believing that individual teaching approach is more important.

(k) Teachers' attitudes towards discipline rules were significantly associated with their attitudes towards special education use.

Bar chart viii. k: Distribution of discipline rules in relation to use of special education



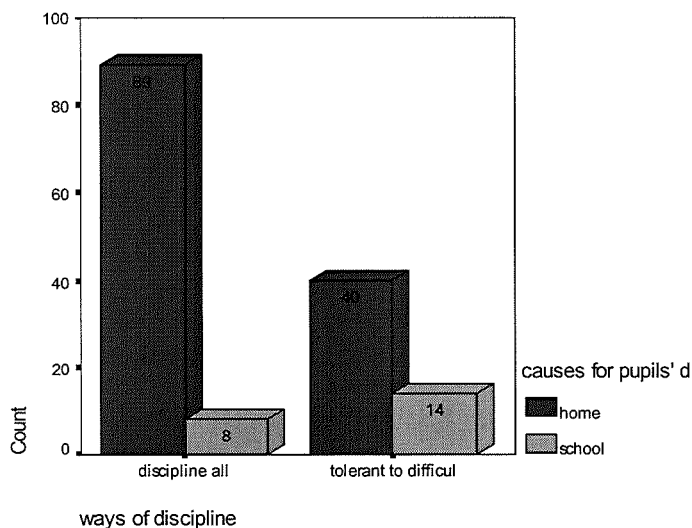
Chi. Sq.=3.9, df=1, $p<.048$

There was a tendency for teachers who believe that being tolerant to pupils with difficulties is more important to believe that use of special education in ordinary schools is more important.

Amongst teachers who believe that discipling all pupils is more important, there was a smaller tendency in believing that use of special education in ordinary schools is more important.

(l) Teachers' attitudes towards discipline rules were significantly associated with their attitudes towards environmental causes for pupils' difficulties.

Bar chart viii. I: Distribution of discipline rules in relation to environmental causes for pupils' difficulties



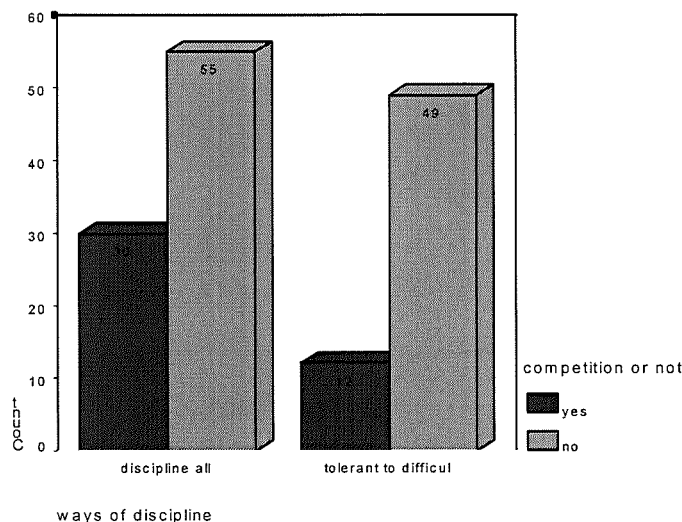
Chi. Sq.=8.7, df=1, $p<.003$

There was a strong tendency for teachers who believe that disciplining all pupils is more important to believe that home is more responsible for pupils' difficulties.

Amongst teachers who believe that being tolerant to pupils with difficulties is more important there was a smaller tendency in believing that home is more responsible for pupils' difficulties.

(m) Teachers' attitudes towards discipline rules were significantly associated with their attitudes towards use of competition.

Bar chart viii. m: Distribution of discipline rules in relation to use of competition



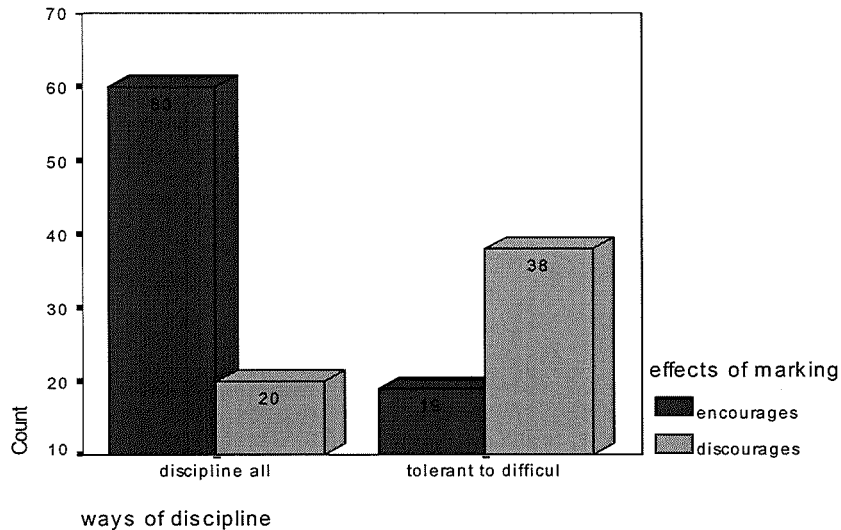
Chi. Sq.=4.2, df=1, $p<.040$

There was a tendency for teachers who believe that being tolerant to pupils with difficulties is more important to disagree with the use of competition in class.

Amongst teachers who believe that discipling all pupils is more important, there was a smaller tendency in disagreeing with the use of competition in class.

(n) Teachers' attitudes towards discipline rules were significantly associated with their attitudes towards effects of marking.

Bar chart viii. n: Distribution of discipline rules in relation to effects of marking



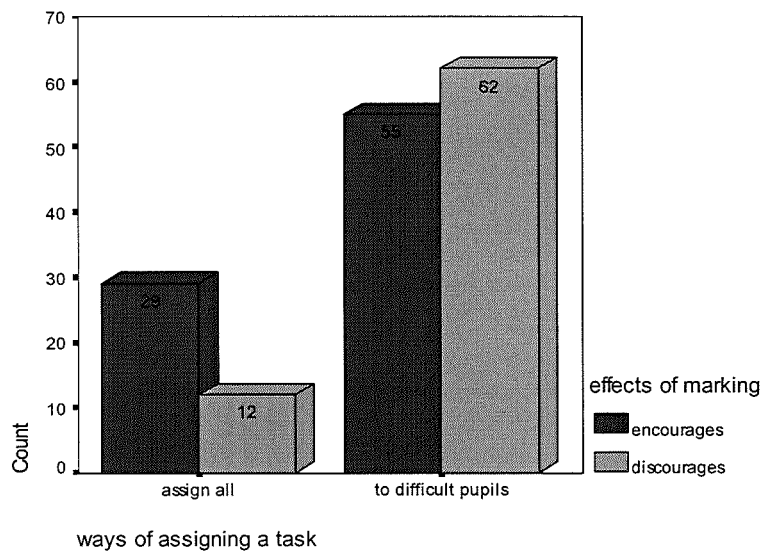
Chi. Sq.=23.6, df=1, $p<.000$

There was a strong tendency for teachers who believe that disciplining all pupils is more important to believe that encouraging effects of marking are more possible.

Amongst teachers who believe that being tolerant to pupils with difficulties is more important, there was a smaller tendency in believing that discouraging effects of marking are more possible.

(o) Teachers' attitudes towards assign task were significantly associated with their attitudes towards effects of marking.

Bar chart viii. o: Distribution of assign task in relation to effects of marking



Chi. Sq.=6.8, df=1, $p<.009$

There was a strong tendency for teachers who believe that assigning all pupils a task is more important to believe that encouraging effects of marking are more possible.

Amongst teachers who believe that assigning pupils with difficulties a task is more important, there was no big difference in believing that either encouraging or discouraging effects of marking are more possible.

ix. Description of t tests

a. Association between teaching approaches attitude and classroom practice.

Group Statistics

	teaching approach	N	Mean	Std. Deviation	Std. Error Mean
inter. teac-class per 5minutes/pupil	whole class teaching	26	.2592	7.364E-02	1.444E-02
	individual teaching	17	.2617	5.110E-02	1.239E-02
inter. teac-pupil per 5 minutes/pupil	whole class teaching	26	.3044	.1084	2.125E-02
	individual teaching	17	.3052	8.921E-02	2.164E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	5% Confidence Interval the Mean	
									Lower	Upper
inter. teac-class per 5minutes/pupil	Equal variances assumed	1.978	.167	-.122	41	.904	2.4939E-03	2.051E-02	4.3920E-02	5.893E-02
	Equal variances not assumed			-.131	40.804	.896	2.4939E-03	.903E-02	4.0931E-02	5.594E-02
inter. teac-pupil per 5 minutes/pupil	Equal variances assumed	.109	.743	-.023	41	.982	7.1796E-04	5.160E-02	5.4539E-02	5.310E-02
	Equal variances not assumed			-.024	38.707	.981	7.1796E-04	5.033E-02	5.2076E-02	5.064E-02

b. Association between educational opportunity attitude and classroom practice.

Group Statistics

	educational opportunity	N	Mean	Std. Deviation	Std. Error Mean
inter. teac-pupil per 5 minutes/pupil	no emphasis	4	.3746	.1600	8.000E-02
	difficult pupils emphasis	38	.3018	8.519E-02	1.382E-02
inter teac-ld pupil per 5 minutes/ld pupil	no emphasis	4	.3079	.1508	7.541E-02
	difficult pupils emphasis	38	.2516	.1171	1.899E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Mean	
									Lower	Upper
inter. teac-pupil per 5 minutes/pupil	Equal variances assumed	3.118	.085	1.489	40	.144	7.274E-02	4.884E-02	-2.5971E-02	.1714
	Equal variances not assumed			.896	3.181	.433	7.274E-02	8.119E-02	-.1775	.3230
inter teac-ld pupil per 5 minutes/ld pupil	Equal variances assumed	.243	.625	.893	40	.377	5.633E-02	6.305E-02	-7.1107E-02	.1838
	Equal variances not assumed			.724	3.392	.516	5.633E-02	7.777E-02	-.1758	.2884

c. Association between feedback attitude and classroom practice.

Group Statistics

	teachers' feedback	N	Mean	Std. Deviation	Std. Error Mean
teac-pup posfd per5 minutes/pupil	corrective feedback	1	6.909E-02	.	.
	positive feedback	43	7.315E-02	2.955E-02	4.507E-03
teac-pup corfd per 5 minutes/pupil	corrective feedback	1	5.455E-02	.	.
	positive feedback	43	6.743E-02	3.515E-02	5.360E-03

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
				95% Confidence Interval of the Mean						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
teac-pup posfd per5 minutes/pupil	Equal variances assumed	.	.	-.136	42	.893	-4.0595E-03	2.989E-02	-6.4390E-02	5.627E-02
	Equal variances not assumed	-4.0595E-03	.	.	.
teac-pup corfd per 5 minutes/pupil	Equal variances assumed	.	.	-.362	42	.719	-1.2880E-02	3.555E-02	-8.4628E-02	5.887E-02
	Equal variances not assumed	-1.2880E-02	.	.	.

d. Association between rewards attitude and classroom practice.

Group Statistics

	teachers' rewards	N	Mean	Std. Deviation	Std. Error Mean
teac-pupil pr.effort per 5 minutes/pupil	performance effort	2	7.194E-02	1.719E-02	1.215E-02
	effort	39	3.086E-02	3.081E-02	4.933E-03
teach-pup praise per 5 minutes/pupil	performance effort	2	1.292E-02	8.629E-03	6.102E-03
	effort	39	1.889E-02	1.875E-02	3.003E-03

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	5% Confidence Interval of the Mean	
	Equal variances assumed	.123	.728	1.856	39	.071	4.108E-02	2.214E-02	-3.6962E-03	8.585E-02
	Equal variances not assumed			3.132	1.356	.142	4.108E-02	1.312E-02	-5.0760E-02	.1329
teach-pup praise per 5 minutes/pupil	Equal variances assumed	.799	.377	-.444	39	.660	-5.9729E-03	1.346E-02	-3.3194E-02	2.125E-02
	Equal variances not assumed			-.878	1.541	.495	-5.9729E-03	8.801E-03	-4.5412E-02	3.347E-02

e. Association between discipline attitude and classroom practice.

Group Statistics

	discipline rules	N	Mean	Std. Deviation	Std. Error Mean
teacher-pupil criticise per 5 minutes/pupil	discipline all	22	3.809E-02	2.592E-02	5.525E-03
	tolerant to difficult	13	4.317E-02	3.513E-02	9.742E-03
teach-df pup cri	discipline all	22	4.036E-02	2.952E-02	6.294E-03
	tolerant to difficult	13	5.184E-02	5.167E-02	1.433E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	5% Confidence Interval of the Mean	
									Lower	Upper
teacher-pupil criticise per 5 minutes/pupil	Equal variances assumed	1.176	.286	-.491	33	.627	5.0805E-03	1.035E-02	2.6147E-02	1.599E-02
	Equal variances not assumed			-.454	19.791	.655	5.0805E-03	1.120E-02	2.8459E-02	1.830E-02
teach-df pup cri	Equal variances assumed	5.492	.025	-.840	33	.407	1.1484E-02	1.366E-02	3.9284E-02	1.631E-02
	Equal variances not assumed			-.734	16.720	.473	1.1484E-02	1.565E-02	4.4552E-02	2.158E-02

f. Association between assign task attitude and classroom practice.

Group Statistics

	assign task	N	Mean	Std. Deviation	Std. Error Mean
teacher-pupil assign per 5 minutes/pupil	assign all	10	1.469E-02	1.208E-02	3.820E-03
	assign difficult	28	2.198E-02	1.953E-02	3.690E-03
teach-df pup ass	assign all	10	1.031E-02	1.826E-02	5.774E-03
	assign difficult	28	1.336E-02	1.421E-02	2.685E-03

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	5% Confidence Interval of the Mean	
									Lower	Upper
teacher-pupil assign per 5 minutes/pupil	Equal variances assumed	2.369	.132	-1.102	36	.278	7.2924E-03	5.615E-03	2.0709E-02	5.124E-03
	Equal variances not assumed			-1.373	26.069	.181	7.2924E-03	5.311E-03	1.8209E-02	5.624E-03
teach-df pup ass	Equal variances assumed	.270	.606	-.541	36	.592	3.0547E-03	5.644E-03	1.4501E-02	3.392E-03
	Equal variances not assumed			-.480	13.108	.639	3.0547E-03	5.368E-03	1.6800E-02	.069E-02

g. Association between seating arrangements attitude and classroom practice

Group Statistics

	seating arrangements	N	Mean	Std. Deviation	Std. Error Mean
percentage of non Id/ld pupils sitting together	separately	2	.1000	.1414	.1000
	together	44	.6409	.3546	5.346E-02
percentage of Id pupils sitting separately	separately	2	.4000	.5657	.4000
	together	44	.2682	.3018	4.549E-02

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Mean	
									Lower	Upper
percentage of non Id/ld pupils sitting together	Equal variances assumed	1.515	.225	-2.130	44	.039	-.5409	.2539	-1.0526	-2.9204E-02
	Equal variances not assumed			-4.770	1.650	.059	-.5409	.1134	-1.1427	6.088E-02
percentage of Id pupils sitting separately	Equal variances assumed	1.547	.220	.588	44	.560	.1318	.2243	-.3203	.5839
	Equal variances not assumed			.327	1.026	.797	.1318	.4026	-4.6867	4.9503

xi. QUESTIONNAIRE (1)

PART1

1. Do your pupils decide for themselves where they sit in the classroom?

Yes

No

Other (Please specify)

2. Are the seats usually arranged so that pupils sit:

Separately or in pairs?

In-groups of three or more?

Other (Please specify)

3. Are pupils allocated to places or groups on the basis of their ability?

Yes

No

Other (Please specify)

4. How do your pupils sit in the classroom?

Pupils with no difficulties sit separately

Pupils with difficulties sit separately

Pupils with and without difficulties sit mixed-up

Other (Please specify)

5. Do pupils stay in the same seats or groups for most of the day?

Yes

No

Other (Please specify)

6. If they don't, do you usually allow your pupils to move around the classroom?

Generally whenever they wish?

Only during certain kinds of curricular activity?

Other (Please specify)

7. Do you expect your pupils to ask your permission before leaving the room?

Yes

No

Other (Please specify)

8. If you do, what criteria do you use in order to give your permission?

Intellectual ability of the pupil

Good behaviour of the pupil

The needs of the pupil

Other (Please specify)

9. Do you expect your pupils to be quiet most of the time?

Yes

No

Other (Please specify)

10. If you do, would you punish with the same way both pupils with no difficulties and pupils with difficulties when they talk without permission?

Yes

No

Other (Please specify)

11. If no, how will you punish them?

Be tolerant to pupils with difficulties

Other (Please specify)

12. Do you assign any pupils a specific task or position?

Yes

No

Other (Please specify)

13. What kind of pupils do you use for assigning a task or position?

Mostly pupils with no difficulties

Mostly pupils with no difficulties

Whoever is available

Other (Please specify)

14. Do you regularly give your pupils homework?

Yes

No

Other (Please specify)

15. Do you give the same homework as far its amount and its difficulty level is concerned to both pupils with no difficulties and pupils with difficulties?

Yes

No

Other (Please specify)

16. Do you give easy homework for the pupils with difficulties to complete?

Yes

No

Other (Please specify)

17. Do you put an actual mark or grade on pupils' work?

Yes

No

Other (Please specify)

18. Do you use the same evaluation criteria for both pupils without difficulties and pupils with difficulties?

Yes

No

Other (Please specify)

19. Do you correct most spelling and grammatical errors?

Yes

No

Other (Please specify)

20. Do you punish all the pupils for their errors?

Yes

No

Other (Please specify)

21. Which pupils would you punish more if they made a lot of mistakes?

Mostly the pupils with no difficulties

Mostly the pupils with difficulties

Both of them

Other (Please specify)

22. For persistent disruptive behaviour, where verbal reproof fails to gain pupils' co-operation, do you use any of the following disciplinary measures?

Extra work: Yes No

Withdrawal of privileges: Yes No

Send to head teacher: Yes No

Sent out of room: Yes No

Other (Please specify)

23. Are stars, or the equivalent given to pupils who produce the best work?

Yes

No

Other (Please specify)

24. Do you give any stars or equivalent to pupils who, even though don't produce the best work, they try to do their best?

Yes

No

Other (Please specify)

25. Do you praise all your pupils at least once a week?

Yes

No

Other (Please specify)

26. If you do, do you praise all your pupils according to their abilities, or according to the work they produce?

According to their abilities

According to their work

Other (Please specify)

27. Is marking a motivational factor for pupils' development?

Yes

No

Other (Please specify)

28. If yes, what kind of marking?

High

Other (Please specify)

29. If no, what kind of marking?

Low

Other (Please specify)

PART2

1. Do you teach and encourage pupils to work together in order to solve class problems?

Yes

No

Other (Please specify)

2. Do you teach and encourage pupils to balance their personal ability to score goals with the class goal of helping more pupils to be involved in the class activities?

Yes

No

Other (Please specify)

3. Do you teach and encourage pupils to respect the rights of others in team and group activities?

Yes

No

Other (Please specify)

4. Do you teach and encourage pupils with no difficulties to be positive and supportive when speaking to pupils with difficulties?

Yes

No

Other (Please specify)

5. Do you teach and encourage pupils that group goals, at times, are more important than their own individual needs?

Yes

No

Other (Please specify)

6. Do you teach and encourage pupils to respect differences in ability in the class?

Yes

No

Other (Please specify)

7. Do you teach and encourage pupils to create a better class environment by talking through problems rather than fighting?

Yes

No

Other (Please specify)

8. Do you plan group activities so that pupils from different backgrounds will learn to respect each other?

Yes

No

Other (Please specify)

9. Do you teach and encourage pupils to be sensitive to other pupils' problems and work to help them?

Yes

No

Other (Please specify)

10. Do you teach and encourage pupils to select the best option or strategy to balance their needs with those of their team?

Yes

No

Other (Please specify)

11. Do you teach and encourage pupils to use the abilities of every member of their team?

Yes

No

Other (Please specify)

PART3

1. Do you agree with the statement:

"Since school classes contain a lot of pupils, it becomes very difficult or even impossible for the teacher to show the minimum attention to all of his or her pupils?"

Strongly Disagree

Disagree

Agree

Strongly Agree

2. Do you agree with the statement:

"Showing a lot of attention to pupils with difficulties can become a burden to the education of the pupils with no difficulties?"

Strongly Disagree

Disagree

Agree

Strongly Agree

3. Do you agree with the statement:

"Teaching would be more effective if the pupils with difficulties were away?"

Strongly Disagree

Disagree

Agree

Strongly Agree

4. Do you agree with the statement:

"The needs of pupils with difficulties can be best served through special, separate classes?"

Strongly Disagree

Disagree

Agree

Strongly Agree

5. Do you agree with the statement:

"It is very difficult for the teacher to maintain order in a regular classroom which contains pupils with difficulties?"

Strongly Disagree

Disagree

Agree

Strongly Agree

6. Do you agree with the statement:

"Isolation in a special class has a negative effect on the social development of pupils with difficulties?"

Strongly Disagree

Disagree

Agree

Strongly Agree

7. Do you agree with the statement:

"It is feasible to teach both pupils with and without difficulties in the same class?"

Strongly Disagree

Disagree

Agree

Strongly Agree

8. Do you agree with the statement:

"Pupils with difficulties will monopolise teacher's time?"

Strongly Disagree

Disagree

Agree

Strongly Agree

PART 4

1. Do you think that the problems of the pupil have to do more with the home background or with the school itself?

They have to do both with the home and the school

They have to do only with the school

They have to do only with the home

Other (Please specify)

2. If the pupil's problems have to do only with the school or with the home as well, who is more responsible for that?

Former pupil's teachers

The present teacher

Pupil's parents

The pupil itself

Other (Please specify)

3. In organising the work of your class, roughly what emphasis do you give to each of these five different approaches?

Teacher talking to the class as a whole.

Teacher helping pupils with no difficulties on specific tasks

Teacher helping pupils with difficulties on specific tasks

Other (Please specify)

4. Do you have the same expectations from all of your pupils?

Yes

No

Other (Please specify)

5. What would you expect from the pupils with no difficulties and what from the difficult pupils?
In a three-point scale please indicate what is important for you and what is not.

	PUPILS WITH NO DIFFIC	PUPILS WITH DIFFIC
PUPILS		

Not imp.-Imp.-Esse.	Not imp.-Imp.-	Esse.
---------------------	----------------	-------

Answer all the teacher's questions

Have their homework ready

Finish their work on time

Prepare themselves for higher

level of academic attainment

Enjoy school years and make
friends

Co-operate with other pupils

Feel free to express their feelings,
opinions and emotions

Understand the world in which they live

Develop creative abilities

Get the best marks from all of their classmates

Other (Please specify)

6. Please indicate the strength of your agreement or disagreement with the following statements:

Primary and secondary school pupils should take examinations every year.

Pupils wishing to follow secondary education should take examinations first.

Primary school pupils are not sufficiently prepared for entering the secondary school.

Secondary schools are too demanding for many pupils.

Most pupils in secondary schools have sufficient maturity to choose a topic to study
and carry it through.

Most pupils in primary schools feel more secure if told what to do and how to do it.

Firm discipline by the teacher leads to good self-discipline on the part of the pupils.

The teacher should be well liked by all the pupils in the class.

Pupils working on groups waste a lot of time arguing and messing about.

Pupils work better when motivated by marks or stars.

Too little emphasis is placed on keeping discipline in primary classrooms nowadays.

Secondary school teachers should be informed about the educational level their pupils had in
the primary school.

7. To what extent would you agree or disagree with the following teaching aims:

Avoid discipline problems

Bring the best out of pupils without difficulties.

Encourage responsibility and self-discipline.

Teach basic skills and concepts effectively.

Encourage time wasting or daydreaming.

Leave many pupils unsure of what to do.

Provide the right balance between teaching and individual work.

Allow each pupil to develop his or her full potential.

Teach pupils to think for themselves

8. Do you agree with the axiom:

"A teacher's love and care for his or her pupils should be distributed equally unless an unequal distribution would be to the advantage of the pupils with difficulties"?

Strongly Disagree

Disagree

Agree

Strongly Agree

9. How would you distribute teaching time among the pupils?

Equally

According to their abilities

Other (Please specify)

10. Teachers' role involves:

Reduce differences among pupils

Leave differences among pupils as it is

Raise pupils with difficulties' level

Raise pupils with difficulties' level

Other (Please specify)

thank you for completing this questionnaire!
If you like to make any comments please use the space below

x.ii QUESTIONNAIRE (2)

PART 1

1. Teachers can help full diversity of the class, or help either pupils without difficulties or pupils with difficulties.

To what extent do you agree with these statements:

a. Teachers can help full diversity in the class, with special emphasis given on pupils without difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Teachers can help full diversity in the class, with special emphasis given on pupils with difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

2. Teachers' role includes raising the average level of pupils' attainment.

To what extent do you agree with these statements:

a. Teachers can raise the average level of pupils' attainment, leaving differences between pupils with and without difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Teachers can raise the average level of pupils' attainment, reducing at the same time the differences between pupils with and without difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

3. Possible ways of allocating to places the pupils include mixing - up pupils and separating them .

To what extent do you agree with these statements:

a. You can separate pupils with and without difficulties, but mixing - up pupils with and without difficulties is more appropriate.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. You can mix-up pupils with and without difficulties, but separating pupils with difficulties is more appropriate.

Strongly Agree Agree Disagree Strongly Disagree Don't know

4. Teachers can be severe to both pupils without difficulties and pupils with difficulties who cause troubles in class.

To what extent do you agree with these statements:

a. Teachers can be severe to both pupils with and without difficulties who cause troubles inside the class, but they should be more severe towards pupils without difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Teachers can be severe to both pupils with and without difficulties who cause troubles inside the class, but they should be more severe towards pupils with difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

5. Teachers can assign both pupils without difficulties and pupils with difficulties a special task or position.

To what extent do you agree with these statements:

a. Teachers can assign both pupils with and without difficulties a special task or position, but it is more appropriate to assign pupils without difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Teachers should assign both pupils with and without difficulties a special task or position, but it is more appropriate to assign pupils with difficulties.

Strongly Agree Agree Disagree Strongly Disagree Don't know

6. Teachers can give different homework to pupils without difficulties and to pupils with difficulties.

To what extent do you agree with these statements:

a. Teachers can give different homework to pupils with and without difficulties, but giving different homework to pupils without difficulties is more appropriate.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Teachers can give different homework to pupils with and without difficulties, but giving different homework to pupils with difficulties is more appropriate.

Strongly Agree Agree Disagree Strongly Disagree Don't know

PART 2

1. Basic educational aims can concentrate on pupils' acquisition of social skills, such as making friends and feeling comfortable in class, and concentrate on academic achievement, such as performing well in curriculum subjects.

To what extent do you agree with these statements:

a. The basic aims of education should be concentrated on social skills and academic achievement, but priority should be given to academic achievement.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. The basic aims of education should be concentrated on social skills and academic achievement, but priority should be given to social skills.

Strongly Agree Agree Disagree Strongly Disagree Don't know

2. Teaching approaches can involve both individual teaching and whole class teaching .

To what extent do you agree with these statements:

a. Both individual and whole class teaching are essential, but whole class teaching is more important.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Both individual and whole class teaching are essential, but individual teaching is more important.

Strongly Agree Agree Disagree Strongly Disagree Don't know

3. The needs of pupils with moderate difficulties can be served in special classes inside the ordinary school and in special schools.

To what extent do you agree with these statements:

a. Both special classes inside the ordinary school and special schools serve the needs of pupils with difficulties, but the use of special school is more helpful.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Both special classes inside the ordinary school and special schools serve the needs of pupils with difficulties, but the use of special classes inside the ordinary school is more helpful.

Strongly Agree Agree Disagree Strongly Disagree Don't know

4. Pupils' difficulties can be caused because of the school or because of the home.

To what extent do you agree with these statements:

a. Pupils' difficulties have to do both with the home and the school, but home is more responsible.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Pupils' difficulties have to do both with the home and the school, but school is more responsible.

Strongly Agree Agree Disagree Strongly Disagree Don't know

5. Schools' role can concentrate on the co-operative values and on the competitive values.

To what extent do you agree with these statements:

a. Co-operative and competitive values are essential, but competitive values are more important.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Co-operative and competitive values are essential, but co - operative values are more important.

Strongly Agree Agree Disagree Strongly Disagree Don't know

6. Teachers can reward pupils' efforts and performances on the subjects being taught

To what extent do you agree with these statements:

a. Teachers should reward pupils' efforts and performances, but rewarding performances is more important.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Teachers should reward pupils' efforts and performances, but rewarding efforts is more important.

Strongly Agree Agree Disagree Strongly Disagree Don't know

7. Possible functions of marking include motivating and /or discouraging pupils to do well to the subjects being taught..

To what extent do you agree with these statements:

a. Marking can motivate and/or discourage pupils, but motivating them is more possible.

Strongly Agree Agree Disagree Strongly Disagree Don't know

b. Marking can motivate and/ or discourage pupils, but discouraging them is more possible.

Strongly Agree Agree Disagree Strongly Disagree Don't know

thank you for your help!

If you like to make any comments please use the space below

x.iii QUESTIONNAIRE (3)

PART 1

1. Here are three positions about educational opportunities. Tick the answer nearest your own view:

- a. Teachers can help full diversity in the class, but it is more important special emphasis to be given on pupils without difficulties.
- b. Teachers can help full diversity in the class, but it is more important special emphasis to be given on pupils with difficulties.
- c. It is more important that teachers give special emphasis on both pupils with and without difficulties.

2. Here are three positions about educational outcomes. Tick the answer nearest your own view:

- a. Teachers do raise all pupils' attainment, but leaving the differences between pupils with and without difficulties is more important.
- b. Teachers do raise all pupils' attainment, but reducing the differences between pupils with and without difficulties is more important.

3. Here are two positions about ways of putting pupils in class. Tick the answer nearest your own view:

- a. Teachers can mix-up or separate pupils, but it is more important to separate pupils with difficulties.
- b. Teachers can mix-up or separate pupils, but it is more important to mix-up pupils.

4. Here are three positions about reprimanding pupils who talk without permission or who cause troubles in class. Tick the answer nearest your own view:

- a. Teachers can reprimand both pupils with and without difficulties, but it is more important to reprimand pupils with difficulties.
- b. Teachers can reprimand both pupils with and without difficulties, but it is more important to reprimand pupils without difficulties.
- c. It is more important that teachers reprimand both pupils with and without difficulties.

5. Here are three positions about assigning pupils a special task. Tick the answer nearest your own view:

- a. Teachers can assign both pupils with and without difficulties a special task, but it is more important to assign pupils without difficulties.
- b. Teachers can assign both pupils with and without difficulties a special task, but it is more important to assign pupils with difficulties.
- c. It is more important that teachers assign a task to both pupils with and without difficulties..

6. Here are three positions about homework given to pupils. Tick the answer nearest your own view:

- a. Teachers can give different homework to all their pupils, but giving different homework to pupils without difficulties is more important.
- b. Teachers can give different homework to all their pupils, but giving different homework to pupils with difficulties is more important.
- c. It is more important that teachers give the same homework to both pupils with and without difficulties.

PART 2

1. Here are three positions about priorities for the aims of school education. Tick the answer nearest your own view:

- a. Both academic achievement and social development are important, but academic achievement is more important.
- b. Both academic achievement and social development are important, but social development is more important.
- c. Both are important.

2. Here are three positions about teaching approaches. Tick the answer nearest your own view:
- a. Both whole class teaching and individual teaching are important, but whole class teaching is more important.
 - b. Both whole class teaching and individual teaching are important, but individual teaching is more important.
 - c. Both are important.
3. Here are three positions about the use of special education. Tick the answer nearest your own view:
- a. Both special schools and special education inside mainstream schools serve the needs of pupils with difficulties, but special schools are more helpful.
 - b. Both special schools and special education inside mainstream schools serve the needs of pupils with difficulties, but special education inside mainstream schools is more helpful.
 - c. Both are helpful.
4. Here are three positions about possible environmental causes of a pupil's school problems. Tick the answer nearest your own view:
- a. Pupil's school problems have to do with both home and school, but home is more responsible.
 - b. Pupil's school problems have to do with both home and school, but school is more responsible.
 - c. Both are responsible.
5. Here are three positions about the role of the school. Tick the answer nearest your own view:
- a. Schools promote competition and co-operation, but promoting competition is more important.
 - b. Schools promote competition and co-operation, but promoting co-operation is more important.
 - c. Both are important.
6. Here are three positions about what teachers should reward. Tick the answer nearest your own view:
- a. Teachers can reward both performance and effort spent on learning the subjects, but rewarding performance is more important.
 - b. Teachers can reward both performance and effort spent on learning the subjects, but rewarding effort is more important.
 - c. Both are important.
7. Here are three options about possible motivational functions of marking. Tick the answer nearest your own view:
- a. Marking can motivate or discourage pupils, but motivating them is more possible.
 - b. Marking can motivate or discourage pupils, but discouraging them is more possible.
 - c. Both are possible.

Thank you for your help!
If you like to make any comments please use the space below

x.iv QUESTIONNAIRE (4)

Dear colleagues,

I'm a qualified secondary teacher graduated from the University of Athens, in the School of Philosophy (Philosophical-Pedagogical-Psychological Department).

I'm doing a research through this questionnaire that seeks to ask you your opinions about certain things, both theoretical and practical, which have to do with education in Greek compulsory schools. It consists of two parts: Part I asks you some few background information and Part II asks you some more general questions concerning education. Questionnaires are anonymous and your answers are strictly confidential.

Thank you in advance for your help.

PART I

1. Name of the school (Write down the name):

2. Sex of the teacher (Put a tick in the appropriate box)

MALE	FEMALE

3. Age of the teacher (Write down the number of years of age):

4. Teachers' training (Put a tick in the appropriate box)

2 YEARS DIPLOMA	DIPLOMA	OTHER (Please specify)

5. Teachers' skill (Put a tick in the appropriate box)

PRIMARY TEACHER	SECONDARY TEACHER

6. Teachers' specialized knowledge, e.g.: gymnast, etc. (Write down in the appropriate box, if there isn't any, write *none*)

PRIMARY SCHOOL	SECONDARY SCHOOL

7. Teaching experience (Write down the number of years)

PART II

In the questions below tick the answer nearest your own view. We remind you that you need to state your opinion/attitude regardless of the usual practice followed in the classroom.

1. Which of the following school aims do you think is more important for pupils' development?

- a. Pupils' academic achievement
- b. Pupils' social development

2. Which of the following teaching approaches do you think is usually more efficient?

- a. Whole class approach
- a. Individual approach

3. Which of the following schools do you think is usually more helpful for pupils with difficulties?
- Special schools
 - Ordinary schools
4. Which of the following environmental causes do you think is usually more responsible for a pupil's school problems?
- Home
 - School
5. In most countries today competition is the basic way of promoting economic development. Do you think that competition should be used between classmates inside the schools as well?
- Agree
 - Disagree
6. On the basis of the nine-year compulsory education how do you think that pupils should be treated?
- Pupils should be promoted from one class to another with a minimum of demands
 - Pupils should repeat one or more than one class despite the fact that they will finish the nine classes
7. What is your concept of equal educational opportunities?
- Give the same opportunity to all the pupils
 - Give the same opportunity to all the pupils, with emphasis given to pupils with difficulties as compensating for starting at a disadvantage
8. The feeling of respect has always been very important in people's life. When it comes to education, which of the following two meanings of respect do you think is more important?
- Give the same respect to all pupils
 - Give the same respect to all pupils, with emphasis given to pupils with difficulties as compensating for starting at a disadvantage
9. Which of the following responses to a pupil's half-correct answer do you think would be better to give?
- Say the correct answer yourself
 - Repeat the question in other words
10. Which of the following criteria do you think you should use in order to evaluate your pupils?
- Pupils' performance
 - Pupils' effort
11. Which of the following effects of marking do you think is more likely to happen?
- Marking, whether low or high, is an incentive for pupils' achievement
 - High marks function as incentives and low marks as counter-incentive
12. Which of the following ways of distributing homework to pupils do you think is better?
- Give the same homework to all pupils
 - Give different homework according to their own needs
13. Which kind of grouping of pupils in class do you think it will produce better results?
- Separate average + above average pupils from pupils with difficulties
 - Put them all together
14. When you want to keep discipline in class which of the following do you think it is better?
- Criticize all the pupils that cause troubles in class
 - Try to be tolerant with pupils with difficulties

15. When do you think you should assign pupils to a special task or position?
- a. To reward the best performances by the pupils
 - b. To increase the self-esteem of the pupils with difficulties
16. Which of the following activities do you think is more crucial for a pupil's development?
- a. Academic activities
 - b. Social activities
17. Which of the following teaching methods do you think is more effective?
- a. Work most of the time with the whole class
 - b. Work most of the time with individual pupils
18. Which approach to compensatory education do you think is more helpful to pupils with difficulties?
- a. When pupils with difficulties spend most of their time in special schools
 - b. When pupils with difficulties remain in ordinary schools and go for compensatory teaching for part of their school time
19. Who do you think is usually more responsible for a pupil's school problems?
- a. The pupils' parents
 - b. The pupils' teachers
20. Competition has always been a basic characteristic of sports. When it comes to school, there have been the following viewpoints concerning its use. Which one do you agree with most?
- a. Education without competition is inconceivable
 - b. In ordinary classes, with pupils of high, average and low abilities, competition may have undesirable side-effects
21. What do you take the nine-year compulsory school education to mean?
- a. That all pupils will complete nine years in school regardless of whether they complete all the nine grades or not
 - b. That all pupils will complete the nine grades in nine years
22. As regards how a teacher distributes care and attention to the pupils, which do you think is more important?
- a. Give the same basic care and attention to all pupils
 - b. Give the same basic care and attention to all pupils, with special emphasis on the ones with difficulties as compensating for starting at a disadvantage
23. Which of the following statements concerning respect do you agree with most?
- a. All pupils deserve the same respect by their teacher
 - b. All pupils deserve the same respect by their teacher, but pupils with difficulties deserve it more as compensating for starting at a disadvantage

24. During a teaching situation a teacher asks a question to a pupil and the answer he/she gives is half-correct. Which of the following responses do you think would be more appropriate?

- a. Ask another pupil to answer the same question
- b. Repeat the question in other words

25. What do you think it should be more important in evaluating pupils?

- a. Whether they performed well or not
- b. Whether they tried enough or not

26. Which of the following outcomes of marking do you think is more likely?

- a. Marking can always motivate pupils
- b. Marking can discourage pupils who perform poorly in class

27. How do you think a teacher should distribute pupils' homework?

- a. By giving the same homework to all pupils
- b. By giving difficult homework to average pupils and easier homework to the ones with difficulties

28. When do you think that pupils perform better in class?

- a. When pupils sit separately according to their abilities
- b. When pupils sit all together

29. Which way of reprimanding pupils who cause troubles in class is better?

- a. Be severe towards all pupils who cause troubles in order to secure the normal activities of the class
- b. Be tolerant towards pupils with difficulties who cause troubles, even if this creates some problems concerning the normal activities of the class

30. To whom do you think a teacher should usually assign a special task or position?

- a. To all pupils
- b. To all pupils, but especially to the ones with difficulties as compensating for starting at a disadvantage

thank you for completing this questionnaire!
If you like to make any comments use the space below

xv. OBSERVATION SCHEDULE (1)

1. Name and address of the school:
2. Teacher's specialised knowledge:
3. Class:
4. Lesson:
5. Number of pupils:
6. Number of pupils with difficulties:
7. Date:

TIME	T-P	T-PP	T-GR	T-CL	PR.EF	PR.PE	CRI	ASS	OTHER
0-2									
2-4									
4-6									
6-8									
8-10									
10-12									
12-14									
14-16									

KEY:

1. TIME, stands for every observable period of time of the lesson which takes place (0-2 minutes used in this case).
2. T-P, stands for every interaction which takes place between the teacher and one pupil only.
3. T-PP, stands for every interaction which takes place among the teacher and two pupils (usually as a pair in the same desk) only.
4. T-GR, stands for every interaction which takes place between the teacher and a group of pupils (more than two) only.
5. T-CL, stands for every interaction which takes place between the teacher and the class as a whole.

(2, 3, 4 and 5 refer to question 1 in Part 1 of the questionnaire 3)

6. PR.EF, stands for every interaction between the teacher and pupil(s) in which the teacher praises (verbal or not) the effort pupil made on a specific task or subject.
7. PR.PE, stands for every interaction between the teacher and pupil(s) in which the teacher praises (verbal or not) pupil's performance on a specific task or subject.

(6 and 7 refer to question 6 in Part 2 of the questionnaire 3)

8. CRI, stands for every interaction between the teacher and pupil(s) in which teacher criticises pupil(s) (verbal or not) and tries to discipline class when there are problems, like pupil(s) talking without permission and causes problems in class.

(8 refers to question 4 in Part 1 of the questionnaire 3)

9. ASS, stands for every interaction between the teacher and pupil(s) in which teacher assigns a special task or position (like write in blackboard, watch the class for a while) to pupil(s).

(9 refers to question 5 in Part 1 of the questionnaire 3)

10. OTHER, stands for every other interaction between the teacher and pupil(s) or for any other interesting aspect of the teaching process that might have been overlooked.

xv.i OBSERVATION SCHEDULE (2)

1. Name of the school:
2. Class:
3. Number of pupils:
4. Number of pupils with difficulties:
5. Teacher's specialised knowledge:

TIME	T-P	T-CL	P.FD	C.FD	PR.EF	PR.PE	CRI	ASS
0-5								
6-10								
11-15								
16-20								
21-25								
26-30								
31-35								
36-40								
41-45								
46-50								

KEY:

1. TIME, stands for every observable period of time of the lesson which takes place. (0-5 minutes)
2. T-P, stands for every interaction which takes place between the teacher and pupil.
(2 refers to questions 2- 17, 7-22 in Part II of the questionnaire 4)
3. T-CL, stands for every interaction which takes place between the teacher and the class as a whole.
(3 refers to questions 2-17 in Part II of the questionnaire 4)
4. PFD, stands for every interaction between the teacher and pupil(s) in which the teacher gives positive feedback to pupil(s).
5. CFD, stands for every interaction between the teacher and pupil(s) in which the teacher gives corrective feedback to pupil(s).
(4 and 5 refer to questions 9-24 in Part II of the questionnaire 4)
5. PR.EF, stands for every interaction between the teacher and pupil(s) in which the teacher praises the effort pupil made on a specific task or subject.
6. PR.PE, stands for every interaction between the teacher and pupil(s) in which the teacher praises pupil's performance on a specific task or subject.
(5 and 6 refer to questions 10-25 in Part II of the questionnaire 4)
- 7.CRI, stands for every interaction between the teacher and pupil(s) in which teacher criticises pupil(s) and tries to discipline class when there are problems, like pupil(s) talking without permission and causes problems in class.
(7 refers to questions 14-29 in Part II of the questionnaire 4)
8. ASS, stands for every interaction between the teacher and pupil(s) in which teacher assigns a special task or position (like write in blackboard, watch the class for a while) to pupil(s).
(8 refers to questions 15-30 in Part II of the questionnaire 4)

The observation schedule above tries to be as much simple and practical as possible. It follows the questionnaire and uses only questions that are observable by either definition or practical reasons. On the basis of that I considered the following:

1. Questions 1-16, 3-18, 4-19, 5-20, 6-21, 8-23, 11-26,12-27 of Part II cannot be observed because they are too theoretical, general, their definition is very wide and include activities that take place beyond the classroom.
2. Questions 2-17, 7-22, 9-24, 10-25, 13-28, 14-29, 15-30 can be observed. Questions 2-17 deal with the interactions between individual pupils/whole class and the teacher. Questions 7-22 deal with the amount of interactions which take place inside the classroom between the teacher and the average-bright and pupil(s) with difficulties. Here, every kind of interaction is included. Questions 9- 24 deal with a very specific situation in which teacher gives either positive or corrective feedback to pupil(s). Questions 10-25 have to do with what teacher actually praises: effort, or performance? Questions 13-28 will be answered after the completion of the observation and will show teacher's way of putting pupils in class. Questions 14-29 deal with situations in which teacher criticises pupil(s) because they are disturbing class by either talking without permission or causing troubles. Questions 15-30 deal with situations in which teacher assigns a special task or position (like write in blackboard, watch the class for a while).

xvii. CLASSROOM MAP

1. Name of the school:
2. Class:
3. Number of pupils:
4. Number of pupils with difficulties:
5. Teacher's specialised knowledge:
6. Date:

A		B		C		D	
1	2	1	2	1	2	1	2
E		F		G		H	
1	2	1	2	1	2	1	2
I		J		K		L	
1	2	1	2	1	2	1	2
M		N		O		P	
Q		R		S		T	
1	2	1	2	1	2	1	2